Correspondence

(3)

Richard B. Allen
145 High St. # A
Westerly, RI 02891

July 31, 2012

Groundfish Committee
New England Fishery Management Council

Dear Groundfish Committee Members:

I'm writing to urge you to support the elimination or modification of legal minimum size regulations that require fish to be wasted and potential profits to be squandered. I have advocated the elimination of legal minimum fish size regulations since the late 1980s, when it became clear that they force fishermen to discard marketable fish in large numbers whenever a strong year class moves through the fishery. The elimination of the legal minimum size regulations would produce the following benefits:

1. Additional profit for the groundfish fleet;
2. Greater efficiency in the use of fuel, labor, and other inputs used to catch and discard undersize fish;
3. Reduced monitoring costs – most at-sea monitoring effort is directed at counting discards;
4. Improved stock assessments resulting from greater certainty surrounding total mortality.
5. The possible reversal of low stock productivity shown in laboratory experiments to result from selective fishing on the largest fish.

Economic Benefits of Full Retention

In addition to wasting fish, these discards waste fuel, labor and other inputs that were consumed in catching the fish. The PDT analysis (Enclosure 5) emphasizes potential reductions in physical yield that might result from a shift in selectivity to fish one year younger than the current selectivity. Although the PDT does not analyze the likely change in economic yield, they do point out that fishermen may catch smaller fish more quickly and thus reduce operating costs. To the extent that a shift in selectivity results in reduced fuel and other inputs per dollar's worth of landings, the fishery would have increased the net benefits to the nation in spite of the loss of physical yield.

The most recent assessment of the Gulf of Maine Atlantic cod (*Gadus morhua*) stock estimated that commercial discards accounted for up to 44% of the total catch in any given year, averaging approximately 25% over the past decade (NEFSC 2012). As long as the minimum legal sizes remain in effect, the strong year-classes that have the potential to rebuild depleted stocks will also result in high discard rates. The TRAC Status Report 2012/03 states that for Eastern Georges Bank haddock "in 2013, the 2010 year class will be mostly below the current minimum size regulation used by the US, which could lead to significant discarding. This is not expected to be an issue in the Canadian fishery due to the different gear types and management measures."

The Biology of Full Retention

cc: Council, TN, FH(8/1), PMF

Enclosure 5 explains that a possible change in selectivity "should not lead to biological concerns for most groundfish stocks" as long as catches are adequately monitored and the change can be detected (or anticipated) and taken into consideration in setting biological reference points. The fact that groundfish scientists currently calculate fishing mortality rates, biomass, and allowable catches for shared stocks that are subject to different management measures, including the absence of a minimum size in Canada, demonstrates the capability to adjust these reference points in response to the prevailing catch composition.

High discard rates with uncertain discard mortality rates not only waste fish, but they also confound stock assessments because the number of fish killed by discarding is not known with certainty. The discard mortality rates for cod used in the SARC53 assessment were assumed to be 100% for all gears and the same assumption is made for many of the assessed groundfish stocks in the northeast United. If the assumed discard mortality rate is correct, there is no conservation benefit from the legal minimum size; if it is not correct, the stock assessments are distorted by the variable discarding caused by the legal minimum size.

The PDT raises the issue of a potential impact on recruitment "that may occur from reducing the number of older fish in the population," implying that a shift in selectivity toward smaller fish would reduce the number of older fish in the population. It seems equally plausible that targeting smaller fish might actually increase the proportion of larger fish in the population, particularly if lower ACLs resulted in lower overall fishing mortality rates and especially lower fishing mortality rates on larger fish.

There is increasing concern among fishery scientists and managers that selectively fishing on large fish brings about undesirable changes in fish populations, to the extent that some scientists believe that "a new, less selective approach to commercial fishing is needed to ensure the ongoing productivity of marine ecosystems and to maintain biodiversity," according to a paper in the *Proceedings of the National Academy of Sciences* by a group of Australian researchers. Other scientists have discovered that "selectively catching large fish favors genotypes with slower growth, earlier age at maturity, smaller size, and other changes that can lower population productivity."

The Potential for More and More Discards

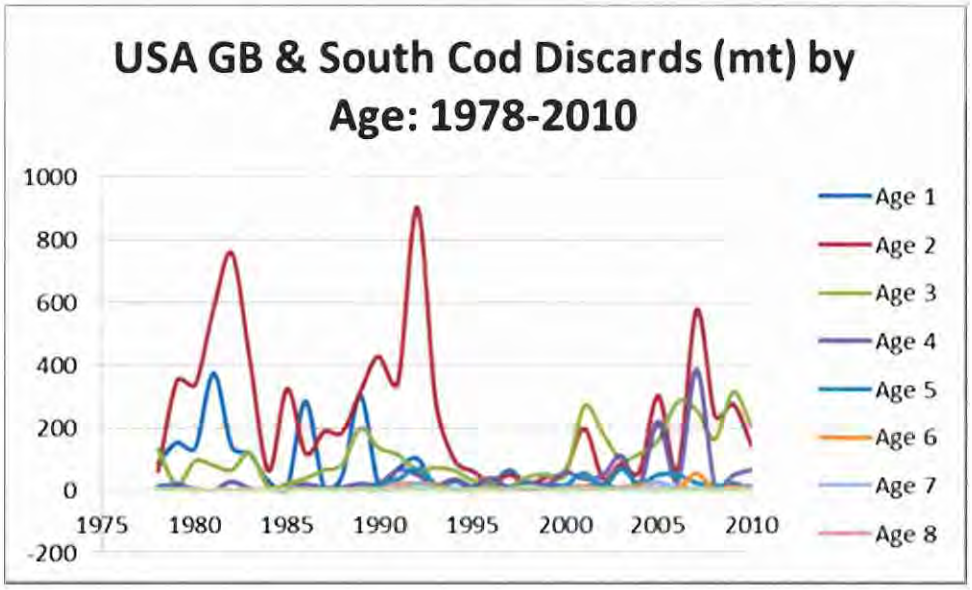
The recent stock assessment update for New England groundfish and the TRAC Status Report 2012/03 indicate the likelihood for increased discarding of both cod and haddock under the current minimum size regulations.

"The recruitment indices for age 1 [GB cod] from the NEFSC autumn bottom trawl survey indicate that the 2008 year class is just above the long term average. This is the first above average year class to occur in 20 years, since the 1988 year class."

Being slightly above the long term average doesn't seem like it would produce out-of-the-ordinary conditions, until you think about the fact that we have not seen an above-average year class for 20 years. If we start seeing good year classes as the stock rebuilds, and we keep the legal minimum size as it is, we will see more years of high discard rates.

Age 2 cod have the highest discards by weight in years when discards are high, because they are just below the minimum size of 22 inches. At 19-20 inches in length and 3-4 lbs

in weight, they are a good marketable fish. The graph below shows the spikes in discards as a year class becomes susceptible to the gear and then moves into the legal size. The last year class above the long term average resulted in U.S. discards of age 2 GB cod of 900 metric tons. That's about 2 million pounds, which would bring in $3-4 million in revenue.



The bubble plot of survey catch by age illustrates what might happen if we were able to rebuild the GB cod stock to the point where it produced substantial year classes every few years, as was the case in the 1960s. We would likely see recurring periods of high, unavoidable discards of age 2 fish if we maintain the legal minimum size.

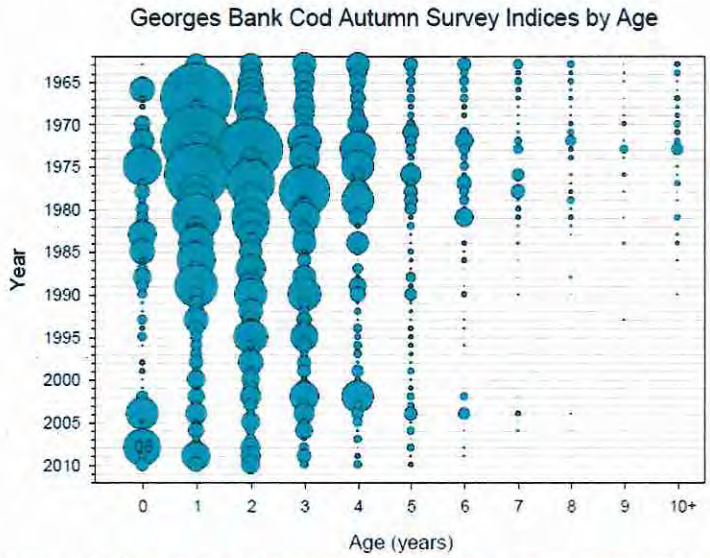
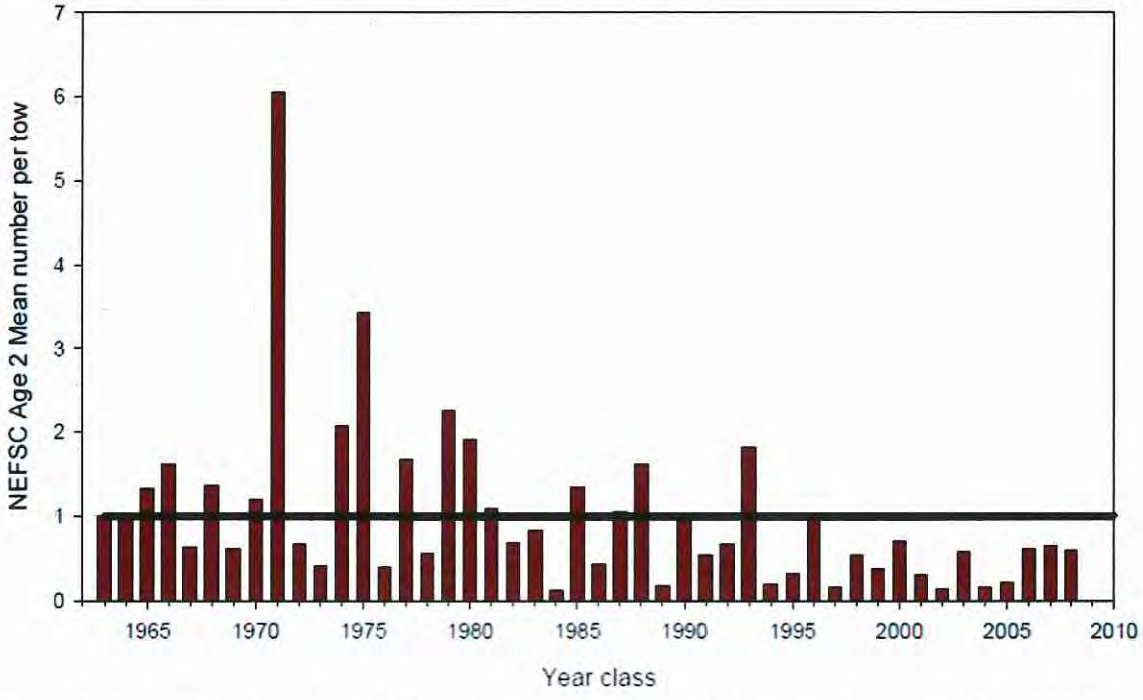
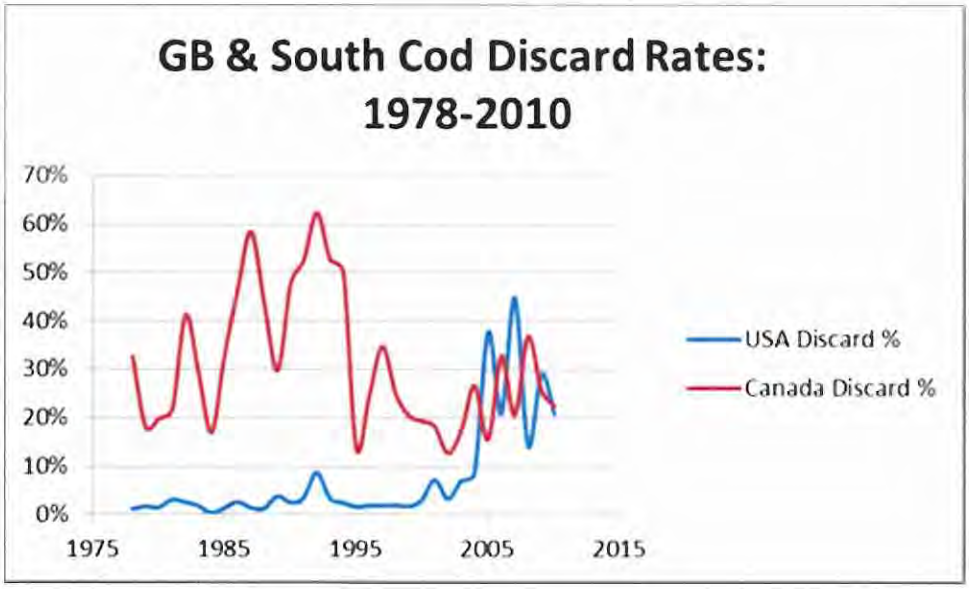


Figure A7. Standardized stratified mean catch per tow at age (numbers) of Georges Bank cod in NEFSC autumn bottom trawl surveys, 1963-2010.

The bar graph of age 2 year class strength from 1963-2010 illustrates the same thing – the legal minimum size is likely to result in periodic high discard rates if and when we see a recovery in the GB and South cod stock.



GB cod discard rates by the US fleet were estimated as being consistently below 5% from 1978 until 2001, when they began to increase to rates consistently above 20%.



The benefits of eliminating the legal minimum fish size for groundfish far outweigh any possibility that fishermen will be tempted to use sub-legal mesh in order to catch more small fish. I believe that fishermen understand that they would be hurting themselves to do so. I also believe that we have adequate enforcement to prevent any significant abuse of the mesh regulations.

I urge you to give careful consideration to the elimination of the legal minimum sizes for groundfish.

Sincerely,

Dick Allen

GREETINGS & GOOD DAY:

My name is Jon K. Polis,

I am a private citizen, and I reside in East Greenwich, Rhode Island.

After reading several articles in my local newspaper, The Providence (RI) Journal, about the problems you are currently facing in regards to the poor conditions of local area ground/fish populations; not only now but for the foreseeable future as well; has anyone in your industry ever looked into the possibility of raising/growing the types/kinds of fish in question in a controlled/monitored environment; otherwise known as fish (tank) farming(?); on a "large scale"?

While I do realize the "start-up" costs for such a venture would be quite high; if the recent local newspaper articles that I have read are any true indication of the massive scope of the problems you are facing, both now & in the foreseeable future, in regards to the "poor shape" of local "wild" ground/fish populations; perhaps this might be an idea worth investigating in order to ensure the future sustainability of ample/sufficient ground/fish population supplies; for the needs of not only your organization(s), but for your customers & the general fish-consuming public as well.

I hope that you receive this message in the spirit it was intended, and I want to wish both you, your industry, and all of its involved parties the very best of luck for the future.

Thank you for your time & efforts. Please forward this message to whomever you feel will benefit the most from it.

Lastly, please respond to verify that you have received this message.

Respectfully yours,

Jon K. Polis

East Greenwich, Rhode Island

at peterjburns2@verizon.net

(3)

New England Fishery Management Council
50 WATER STREET | NEWBURYPORT, MASSACHUSETTS 01950 | PHONE 978 465 0492 | FAX 978 465 3116
C. M. "Rip" Cunningham, Jr., *Chairman* | Paul J. Howard, *Executive Director*

August 6, 2012

The Honorable Rebecca Blank
Acting Secretary of Commerce
1401 Constitution Ave, N.W.
Herbert C. Hoover Building, Room 5838
Washington, DC 20230

Dear Acting Secretary Blank,

I am writing on behalf of the New England Fishery Management Council to inform you of the serious economic conditions threatening the New England groundfish industry. Significant losses of fisheries income, jobs and related business failures are already occurring and will continue into 2013 and beyond if we are to continue to rebuild and maintain this fishery. These conditions have been the result of unanticipated changes to earlier scientific advice provided to the Council and have triggered significant catch reductions in order to meet Magnuson-Stevens Act requirements.

As a result of an assessment of the Gulf of Maine cod stock, completed in December 2011, NOAA/ National Marine Fisheries Service, in consultation with the New England Council, reduced the allowable catch of Gulf of Maine cod to 6,700 metric tons for fishing year 2012. This is a 39% reduction from the 2010 catch of 11,000 metric tons. Based on current information, the 2013 catch will have to be lowered further to a range between 1,500 and 5,000 metric tons. This circumstance will be devastating to the fishing communities that are already struggling.

Additionally, an updated assessment for Gulf of Maine haddock, another key stock for both the commercial and recreational fishery, revealed that overfishing is occurring even though recent catches have been below their respective quotas. Accordingly, the Council will have to reduce the Gulf of Maine haddock catch limit by about 70% to end overfishing in 2013.

An updated assessment of Georges Bank cod will also lead to reduced quotas in fishing year 2013. Catch projections from this assessment under two rebuilding strategies show reductions in 2013 catch compared to 2011 ranging from about 10 to 41%[i]. Further, advice from the U.S./Canada Transboundary Resource Assessment Committee stock assessment of Georges Bank yellowtail flounder convened recently points toward a 55% allowable catch reduction from 1,150 metric tons in 2012 to only 500 metric tons in 2013.

NMFS has provided the Council and the public with the following preliminary estimates of reductions in the annual catch limits (ACLs):

Stock/Species	Change: FY2012 to FY2013 ACLs	Change: FY***2011*** commercial catch to FY2013 ACL
Georges Bank cod	-70	-57
Gulf of Maine cod	-72	-76
Gulf of Maine haddock	-73	-64
Georges Bank yellowtail flounder	-51	-94
Cape Cod/Gulf of Maine yellowtail flounder	-45	-28
American Plaice	-69	-39

To provide a concrete example of potential impacts of catch limit reductions, from 2007 to 2010, when groundfish landings decreased 21%, inflation-adjusted groundfish revenues decreased 10%, the number of crew positions dropped 15% and the number of vessels landing any groundfish decreased 32%[ii].

In 2010, 450 commercial vessels landed fish with a dockside value of $105 million while on trips landing groundfish. These vessels provided 2,277 crew positions, and their operations supported substantial shore-side employment and economic activity in both large and small coastal communities. An analysis referenced in the attached letter from the Commonwealth of Massachusetts estimated that only about 55% of vessels exceeded their financial break-even point (not including capital costs) on their groundfish trips in 2010.

In other words, a substantial reduction in the landings of key groundfish stocks will have a major impact on revenues, vessels, employment and economic activity in fishing communities that is largely proportional to the decrease in landings. Sudden reductions in landings of several key stocks of over 50% would almost surely result in many business failures and the loss of hundreds of jobs in an industry that has already been weakened by mandated reductions in groundfish catch limits

Additional dimensions to this problem include the following:

- When the annual catch limit for a single stock such as cod, haddock, yellowtail flounder or most other groundfish stocks is reached, fishing for all other stocks in the area must end.
- The cost of leasing quota for stocks that are in short supply will be extremely high and might be beyond the reach of many small-boat owners.
- Segments of the groundfish industry, particularly boats that fish inshore, also will be subject to restrictions that protect marine mammals and Endangered Species Act-listed species. Most notable in the near term are the pending Atlantic sturgeon and current harbor porpoise conservation programs, both of which will impose area-based closures, gear restrictions or other measures that directly limit the operations of groundfish fishermen. These measures, particularly closures of large areas to fishing, whether due to lack of quota or to protect non-target species, frequently cause effort displacement, increasing pressure on all species and habitat, and concentrating competing fishing operations in smaller, and often less-productive open areas.
- The cost of fuel which is a very high percentage of fishing trip costs, ranging from 43% to 59%, is expected to remain near inflation-adjusted 15-year highs.

- In smaller communities where much fishing is based, there are fewer alternatives for employment and resources to lessen economic hardship. Impacts on small boats in the Gulf of Maine will be magnified because they depend so heavily on cod for a major share of their income and it is not feasible for them to fish offshore. Also smaller, inshore commercial operations have very limited access to capital to lease quota or relocate their operations.
- The allocation of Georges Bank yellowtail flounder between the groundfish and scallop fleets is already the subject of controversy and Secretarial intervention, because it is a major constraint on the catch of scallops and other groundfish.
- Although Georges Bank haddock are abundant, the low catch limits for cod, yellowtail and windowpane will limit the amount of haddock that U.S. vessels will be able to catch in 2013. These pressures on large groundfish boats fishing on Georges Bank could cause them to compete for quota in other areas, including Southern New England and in the Gulf of Maine, which will increase the price of quota available to inshore vessels.
- Gulf of Maine party and charter boats also depend very heavily on cod, haddock and pollock for almost all of their catch. Based on information included in Northeast Multispecies Amendment 16, most groundfish party and charter boat fishing trips (85% in 2007) took place in the Gulf of Maine. At that time 153 boats carried 59,865 people on 2,838 trips in the Gulf of Maine on which groundfish were caught. The large reductions in the cod catch limit as well as a reduction in the Gulf of Maine haddock catch limit will have a devastating impact on this important component of the fishing-related economy in New England.
- Even low catch limits for the commercially unimportant stock of windowpane flounder will continue to constrain the groundfish and possibly the scallop fishery on Georges Bank in 2013 and beyond.

Finally, greatly reduced fishing opportunities in 2013 will follow several years of reduced catch levels and loss of employment in the groundfish industry that are documented in the attached letters to former Secretary Bryson from the Governors of Maine, Massachusetts and New Hampshire. Further reductions in landings of the key stocks of cod, haddock and yellowtail flounder will likely cause many marginal fishing operations to fail financially. Until now, these operations have provided coastal communities with a buffer to job losses resulting from the recent recession.

In closing, I ask that you consider the Magnuson-Stevens Act, Section 312(a) that provides for Fisheries Disaster Relief and authorizes funds to mitigate negative outcomes such as those I have described above.

The imminent commercial fishery failure is due to two of the three statutory criteria needed to justify this finding. The conditions we are facing are due to unknown causes; the Council and the industry have reacted appropriately to the need to rebuild fishery stocks, yet our best efforts are not achieving the anticipated results. They are also in part the result of man-made causes beyond the ability of the Council to address through conservation and management measures because the current legal and policy framework does not provide the flexibility needed to adapt to the revised perception of stock status.

The Council and the user groups with whom it collaborates are extremely concerned about what promises to be a very dire future for the fishing industry despite our combined efforts to respond appropriately to rebuild groundfish stocks.

We hope you find this letter useful as you deliberate on a response. Meanwhile, should you have any questions about the information I have provided, please do not hesitate to contact me.

Sincerely,

C.M "Rip" Cunningham, Jr.
Chairman

attachments

Break-Even Analysis of the New England Groundfish Fishery for FY2009 and FY2010

November 14, 2011

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Acknowledgments

The Commonwealth's Division of Marine Fisheries (DMF) working collaboratively with NOAA Fisheries and relying on the expertise of its Statistics Program staff, the University of Massachusetts School for Marine Science and Technology (SMAST), and NOAA's Office of Science and Technology, Economics and Social Analysis Division has completed this *"Break-Even Analysis of the New England Groundfish Fishery for Fishing Years 2009 and 2010."*

DMF expresses great appreciation to its primary authors Dr. Daniel Georgianna (SMAST), Dr. Eric Thunberg (NOAA), and Emily Keiley (SMAST). Other important contributors were Story Reed and Brant McAfee (DMF).

Also involved in this joint collaborative effort and providing guidance and oversight were: Dr. David Pierce and Melanie Griffin (DMF) and Samuel Rauch, Dr. Rita Curtis, and Hannah Goodale (NOAA Fisheries).

This analysis benefited from reviews solicited by the authors. The following individuals graciously offered critical and useful comments:

Dr. Douglas Lipton, University of Maryland
Dr. Larry Perruso, Southeast Fisheries Science Center
Dr. Phil Logan, Retired, Former Chief, Social Sciences Branch, NEFSC
John Walden, Social Sciences Branch, NEFSC
Scott Steinback, Social Sciences Branch, NEFSC
Dr. Kevin Stokesbury, SMAST

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Executive Summary

The purpose of this Break-Even Analysis was to evaluate the financial performance of the multispecies fishery in fishing years (FY) 2009 and 2010. This analysis does not attempt to evaluate the effect or performance of either sector management or annual catch limits (ACLs), both of which were implemented in FY2010.

Break-even analysis is a business tool typically used to project the minimum level of production at expected prices needed to cover both variable and overhead costs for a specified time period (typically one year). This approach has been used in past fishery management analyses (Northeast Multispecies Fishery Management Plan Amendments 7, 13, and 16) to evaluate the effect of changes in days-at-sea (DAS) allocations on break-even for vessels in the groundfish fishery. We use break-even analysis to assess the financial position of selected vessels that participated in the groundfish fishery during FY2009 or FY2010. This is a departure from prior break-even analyses in that our study evaluates actual as compared to projected or forecasted outcomes.

Unless stated otherwise, in this report we use the term groundfish to refer to all species/stocks that are managed under the Northeast Multispecies Fishery Management Plan (FMP) for which a Potential Sector Contribution (PSC) was allocated to each permit holder. These stocks include Gulf of Maine (GOM) cod, GOM haddock, GOM winter flounder, Georges Bank (GB) cod, GB haddock, GB yellowtail flounder, GB winter flounder, Cape Cod/Gulf of Maine yellowtail flounder, Southern New England/Mid-Atlantic yellowtail flounder, pollock, white hake, Acadian redfish, American plaice, and witch flounder. The term groundfish vessel refers to any limited access vessel that participates in the groundfish fishery by landing one or more pounds of allocated groundfish.

This report estimates the number and percentage of vessels that broke even during FY2009 and FY2010. Breaking-even means that the total vessel revenue equaled or surpassed all costs paid by vessel owners including crew payments and other trip costs, marketing costs, overhead costs, and payments made by vessel owners to cover sector costs during the fishing year. Break-even was estimated separately for FY2009 and FY2010 for a sample of limited access groundfish vessels. Vessels included in our sample had to have 1) landed one or more pounds of allocated groundfish; 2) used either gillnet, bottom longline, or otter trawl as the primary gear when harvesting allocated groundfish; and 3) the same moratorium right ID (MRI) for the entire fishing year.

These criteria were applied for both fishing years FY2009 and FY2010 resulting in a total of 468 eligible vessels during FY2009 and 357 vessels during FY2010. These vessels represented 83% and 79%, respectively, of all vessels that landed groundfish on at least one trip during FY2009 and FY2010. Even though our study includes the majority of groundfish vessels, nothing should be inferred from our study about the financial position of the 20% of participating vessels that were not included in the analysis.

Our study sample was further broken down into seven categories based on primary gear and vessel size, where primary gear was determined by the gear type used when landing the majority of allocated groundfish in terms of revenue. These categories include gillnet vessels less than 40

feet, gillnet vessels 40 feet and above, bottom longline vessels less than 40 feet, bottom longline vessels 40 feet and above, otter trawl vessels less than 50 feet, otter trawl vessels between 50 and 65 feet inclusive, and otter trawl vessels above 65 feet.

Estimation of the number and percentage of vessels that broke even measures the performance of the multispecies fishery for FY2009 and FY2010. Since it was not possible in the context of this analysis to fully consider and evaluate every possible factor contributing to the performance of the fishery, the break-even analyses should not be construed as measuring the performance of sector management as a fishery management system. The cumulative effects of management and external changes affected the financial viability for New England groundfish vessels in complex ways that are difficult to untangle. Sector management may have allowed fishermen to selectively target higher priced fish stocks at opportune times that may have increased revenues and mitigated reductions in ACLs. Low ACLs in fish stocks that have technical and biological interactions with high ACL stocks may have constrained the catch of those stocks under a management system with hard catch limits. Increased flexibility to target species under sector management without DAS restrictions and trip limits may have dampened the effects of higher fuel prices in FY2010 relative to FY2009.

Data to support the break-even analysis were obtained from several sources. Vessel activity data were obtained from data bases maintained by the National Marine Fisheries Service Northeast Regional Office. These data included landed pounds and revenue for both allocated groundfish and non-groundfish species as well as number of trips by day trips (trips 24-hours or less) and multi-day trips (trips exceeding 24-hours). These data were summed for fishing years FY2009 and FY2010 by vessel.

However, unlike vessel revenue and activity data that were available for all vessels, cost data were available only for a sample of trips or a sample of vessels. This meant that cost data for the break-even sample were subject to considerable uncertainty. To assess the level of uncertainty in trip and overhead costs, a series of interviews was conducted with vessel owners to ascertain whether available cost data were reasonable or representative. The interviews also informed us that some costs were not collected by existing data collection programs. Based on these interviews we found that 1) neither auction nor trucking fees were part of any data collection program and should be added to the break-even analysis; 2) available trip cost data were consistent with the range of trip costs experienced by vessel owners except that fuel consumption for larger vessels tended to be underestimated; and 3) available overhead cost data incurred by larger vessels were particularly difficult to collect due to substantial differences in terminology and large variability among vessel owners even within the same vessel gear/size categories. The findings from the interviews were utilized to inform how the input data were used and how the analysis was performed.

Trip cost data were obtained from NMFS Northeast Fisheries Science Center observer data. Costs collected on observed trips include gallons of fuel used, fuel price, use and price of ice, as well as the total costs of food, oil, water, bait, and general supplies purchased for the trip. These sample data were used to construct average trip costs by vessel category for day trips and multi-day trips. Trip costs for multi-day trips were converted to a cost per day by dividing total trip costs by the trip duration. Data for observed trips during fishing years 2008 to 2011 were used in

order to obtain sufficient sample size to estimate trip costs for all seven vessel categories for both day and multi-day trips. Trip costs in these years were adjusted by the CPI to compute trip costs in 2009 dollars to estimate FY2009 break-even and 2010 dollars for FY2010 break-even. A simplifying assumption was made to apply average trip costs to both groundfish and non-groundfish trips.

Data for overhead costs were obtained from NMFS Northeast Fisheries Science Center. Overhead costs include insurance, dockage, vessel maintenance, etc. These data were based on a mail survey sent to all permit holders as part of the permit application package during FY2007 – FY2009 seeking overhead costs for 2006-2007. The survey was discontinued in 2009 due to low response rates. As the vessel owner interviews indicated these data presented serious problems because samples were small relative to the populations, standard deviations were large, especially in individual categories of overhead costs, observations were not normally distributed but skewed, and often had large outliers.

Auction fees based on an average of $0.03 per pound, as reported during the vessel owner interviews, were applied to landings sold at display auctions in Portland, Gloucester, Boston, or New Bedford. A simplifying assumption was made to apply the proportion of all pounds landed in the Northeast region at these auctions by vessel category for all vessels. This proportion was estimated separately for both FY2009 and for FY2010. In a similar manner, a trucking fee of $0.10 per pound was applied to all pounds landed outside the ports of New Bedford or Boston where the majority of processing companies are located.

Estimated sector costs were based on a combination of vessel owner interviews and the sector reports. Most sectors charged a one-time membership fee of $10,000, but allowed the fee to be paid in equal installments of $2,500 per year. This fee was treated as an additional overhead cost. Sector fees were also charged on a per pound basis applied only to allocated groundfish. This fee averaged $0.04 per pound during FY2010 and was applied to allocated groundfish landings for each vessel in the break-even study sample.

Crew share was based on a 50/50 lay system where all trip costs and any per pound fees including sector fees were deducted from gross revenues and the remainder was split between the vessel owner and crew at a 50/50 rate.

Because we did not have any reliable way to separate vessels likely to have high versus low overhead costs, we used a Monte Carlo simulation to assign overhead costs for each vessel category. The simulation was conducted using 1,000 iterations where each iteration resulted in an estimate of the number of vessels above break-even depending on the randomly drawn overhead cost by vessel category.

The mean values using the Monte Carlo simulation for overhead costs show higher percentages of vessels in most vessel categories above break-even in FY2010 than in FY2009. On a *fleet-wide basis* 49% (227 of 468) of vessels were above break-even during FY2009 as compared to 55% (196 of 357) of vessels above break-even during FY2010 after accounting for sector costs. Our estimates should be interpreted with caution because we were unable to reliably match vessel categories with overhead costs that led to large uncertainty in estimation. For all vessel

categories, the upper and lower bound estimates using the 90% confidence intervals for FY2009 and FY2010 including sector costs overlap.

On a vessel-category basis the number of vessels above break-even during FY2009 tended to be larger than in FY2010 for nearly all vessel categories except for longline vessels and trawl vessels greater than 65 feet. For longline vessels the mean number of vessels above break-even was the same in both FY2009 and FY2010 while the mean number of large trawl vessels above break-even increased. These results are subject to the same level of uncertainty as the percentages reported above. For all vessel categories the upper and lower bound estimates using the 90% confidence intervals for FY2009 and FY2010 including sector costs overlap.

Note that at least part of the difference in mean values between FY2009 and FY2010 is due to differences in numbers of vessels that met our criterion, but is also due to the decline in the numbers of vessels participating in the groundfish fishery. Specifically of the vessels included in our study data, 111 fewer vessels fished for groundfish in FY2010 than in FY2009. Some of these vessels withdrew from fishing in New England federal waters and others left the groundfish fishery but participated in other fisheries. We did not apply break-even analysis for these vessels because they targeted a wide assortment of other fisheries, which would have made sample size for observer data on trip costs from these vessels too small for this analysis when spread out across different fisheries.

While leasing costs and revenue may have been large for many vessel owners, leasing costs were not included in the break-even analysis due to lack of data on intra-sector trading as well as uncertainty in the price data submitted for inter-sector trades. Leasing quota has implications for the financial position of any given fishing business. While we cannot provide a formal analysis of leasing impacts on break-even due to missing data on leasing in-flows and out-flows by vessel, and missing prices for many transactions, there is sufficient data to estimate the in-flow of quota that would have been required for the vessels included in the break-even analysis. This estimate was obtained for each vessel by summing catches during FY2010 and subtracting the initial quota by stock for each vessel.

During FY2010, the 357 vessels included in the FY2010 break-even data needed to acquire either through monetary or in-kind trades a combined 13.5 million pounds over their initial allocations to cover their catch (landings plus discards). This leased quota, the majority of which was likely to have been leased for monetary compensation (according to sector reports), represented 23% of total catch. Gulf of Maine (GOM) cod represented the largest need for all gillnetters, for small longliners, and for small otter trawl vessels. Georges Bank (GB) cod represented 84% of the annual catch entitlement (ACE) needed for larger longline vessels. For mid-size and large otter trawl vessels the stocks with the largest trading needs were GB cod, GOM cod, GB winter flounder, white hake, and pollock.

The break-even analysis for FY2010 did not include costs of managing sectors not paid by vessel owners or crew and subsidized by NOAA for FY2010 that are likely to be discontinued at some future date. Each sector was given $65,129 to cover sector operating costs for FY2010. Dockside monitoring was also reimbursed by NMFS up to $75,204. The cost of sector membership per vessel paid for by NMFS would depend on the composition of each sector, specifically by the

number of vessels over which the cost would be distributed and the vessel's total groundfish catch.

In addition to sector costs, vessels may be expected at some future date to pay the significant costs of at-sea monitoring (ASM). Using the current observer coverage rate, the current days absent, and the current monitoring cost per day, we estimate a total ASM cost for FY2010 of $3.67 million, which represents 4% of total groundfish revenue, 4% of total groundfish trip revenue, and 2% of total fishing revenue from all species including groundfish and non-groundfish trips. The ASM coverage rate required for FY2012 (8% provided by Northeast Fishery Observer Program, 17% provided by contracted at-sea monitors) instead of the current observer coverage rate would result in lower overall monitoring costs. At FY2010 activity levels for the vessels included in the break-even analysis, the 17% coverage rate would have cost $2.35 million. This level would represent approximately 3% of FY2010 groundfish revenue and 1.4% of total fishing revenue.

The uncertainty in the break-even results, particularly related to sector costs, makes definitive conclusions regarding financial performance during FY2009 as compared to FY2010 challenging. Available data on overhead costs in particular also hamper our ability to determine with certainty the financial condition of the vessels included in the break-even analysis. Nevertheless, while we recognize other potential factors it is clear that fewer vessels participated in the groundfish fishery during FY2010 than did so during FY2009. It is also clear that under any circumstances, results show large numbers and percentages of vessels not breaking even during either FY2009 or FY2010.

To accurately determine the financial condition of the multi-species fishery, data must be more reliable and of better quality, especially overhead cost data. The NEFMC and other interested management bodies should pay greater attention to this critical need.

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Appendix A

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I. Introduction

Starting on 1 May 2010, the management system for New England groundfish known as the Northeast Multispecies Fishery Management Plan (Multispecies FMP) transitioned from an input-only type control to a mix of input and output-type control systems. Specifically, the sector management program initially established by Amendment 13 was applied to the entire fishery, with most vessels moving from a management system based on days-at-sea (DAS) to a system in which catch (Annual Catch Entitlement or ACE) for 14 the 20 fish stocks included in the Multispecies Plan was allocated to sectors. Each vessel permit within the sector was assigned a potential sector contribution (PSC) for each stock based on its fishing history. With some exceptions, the ACE for each stock allocated to a sector for the 2010 fishing year (FY2010: from 5/1/2010 to 4/30/2011) was determined by member vessels' PSC and current catch limits. Sectors could allocate their ACE to vessels as they wished and buy or sell ACE from other sectors for that fishing year. In accordance with sector operation plans, vessel owners retained the quota they contributed to the sector as an initial allocation. If a sector met or exceeded its ACE during the fishing year (landings plus discards) for any stock managed under the sector program, it would be required to stop fishing in that stock area for all stocks managed under the Multispecies FMP. The sector could resume fishing if it bought quota from another sector of the stock for which it had exhausted or exceeded its ACE.

Vessel owners who decided not to enroll in a sector became part of the common pool. These vessels were managed by DAS and other effort controls developed by the New England Fishery Management Council (NEFMC) and implemented by the National Marine Fisheries Service (NMFS). Vessels in the common pool could not exchange quota with vessels in a sector and could not lease DAS from vessels in a sector but could lease DAS from another common pool member. Vessels in sectors and vessels in the common pool were included in this report if they met certain criteria for inclusion in the break-even analysis (see Section 2.2 Vessel Selection).

In addition to these changes in the Multispecies FMP, fishery management for all fisheries in federal waters changed as a result of revisions to the Magnuson Stevens Act (MSA). The 2006 Reauthorization of the MSA made the development of annual catch limits (ACLs) a new priority[1]. The MSA strengthened the objective of National Standard 1 to prevent overfishing and rebuild overfished stocks. Regional Councils were required to establish a mechanism for determining ACLs and accountability measures (AMs) for fisheries that exceed their ACLs for all federally-managed fisheries.

Under the Multispecies FMP prior to 2010, annual target catches were set based on desired fishing mortality rates for each stock managed[2]. Exceeding these targets was an indicator that fishing mortality rates may have been higher than desired, which may require an adjustment to the effort controls measures to be implemented during the subsequent fishing year. For the first time in FY2010, limits were set for each of the stocks in the Multispecies fishery that triggered

[1] The requirement to prevent overfishing and rebuilding overfished stocks has been in the Act since 1976, but the priority for preventing overfishing and rebuilding overfished stocks was incorporated in 1996.

[2] GB stocks of cod, haddock, and yellowtail flounder subject to the US/CA resource sharing agreement were and continue to be managed under a hard TAC.

accountability measures that would reduce catch limits in subsequent years if the total catch of that stock surpassed its ACL. The likelihood that the total commercial ACL would be exceeded was mitigated by the fact that any sector that met or exceeded its ACE for a stock must cease fishing in the stock area until additional ACE could be acquired through an exchange with another sector. In this manner, it was possible for one or more sectors to exceed their ACE in one or more stocks without exceeding the total commercial ACL for those stocks.

Catch limits for FY2010 were reduced for most fish stocks in the multispecies fishery from catch limits set for FY2009 (See Table 1.1). For simplicity in this report, multispecies stocks will be called groundfish stocks, a more common term to describe these stocks. Also, unless otherwise noted, we base our study on the allocated groundfish stocks for which sectors received ACE.

Table 1.1 Summary of FY2009 Target TACs and FY2010 ACLs by Allocated Stock *(in metric tons)*

Stock	2009 Total Allowable Catch[1]	2010 ACLs[3]	Change from 2009 to 2010	2009 Landings[4]	2010 Commercial ACLS[5]	2009 Landings as % of 2010 ACL
GB Cod	4,328	3,620	-708	3,290	3,430	95.9
GOM Cod	10,724[2]	8,088[2]	-2,636	7,173	4,567	157.1
Plaice	3,214	3,006	-208	1,513	2,848	53.1
GB Winter	2,004	1,955	-49	1,781	1,852	96.2
GOM Winter	379	230	-149	239	158	151.3
Witch Flounder	1,129	899	-230	980	852	115.0
CC/GOM Yellowtail	860	822	-38	577	779	74.1
GB Yellowtail	1,617	1,021	-596	998	823	121.3
SNE/MA Yellowtail	389	470	81	157	310	50.6
GB Haddock	70,155	42,768	-27,387	7,462	40,440	18.5
GOM Haddock	1,564[2]	1,197[2]	-367	556	825	67.4
White Hake	2,376	2,697	321	1,955	2,556	76.5
Pollock	6,346	18,929	12,583	7,269	16,553	43.9
Redfish	8,614	7,226	-1,388	1,489	6,846	21.7
Total	113,699	92,928	-20,771	35,439	82,839	42.8

Notes
1. 2009 TAC NERO Report Summary US TAC shown for GB Cod, Haddock, and Yellowtail http://www.nero.noaa.gov/ro/fso/reports/TAC/TAC_1997_2009/TAC_FY2009_WEB.pdf
2. Includes recreational catch
3. 2010 Total ACL's Federal Register (75 FR 18360: April 9, 2011.
4. 2009 Landings http://www.nero.noaa.gov/ro/fso/reports/2009_2010_Comparison.htm, the Combined Sector and Common Pool Groundfish by Stock.
5. 2010 Commercial ACL's Federal Register (75 FR 18360: April 9, 2011

In the aggregate total, the FY2010 ACL was 20,711 mt less than the FY2009 target total TAC. However, the majority of this difference was Georges Bank (GB) haddock at -27,387 mt and pollock at +12,583. At least some of the difference in haddock ACL was caused by the change in the procedures by which the FY2010 ACL was derived, but was also caused by the aging of the

large 2003 year class, which no longer comprises a large component of the population. Note that the MSY reference point for GB Haddock was 32,700 mt, which means that the FY2010 ACL was still well above the expected long term yield from the stock. If we remove the dominant negative effect of the reduced FY2010 GB haddock ACL and the large positive effect for pollock, the aggregate difference between FY2009 TACs and FY2010 ACLs falls to a reduction of 5,967 mt[3].

Due to these constraints on catch, fishermen require a "portfolio" of ACE for fish stocks to fish, or the funds and willingness to purchase ACE for those stocks they need. Under hard catch limits, this problem is exasperated as stocks with low ACLs may be difficult to avoid when targeting stocks with high ACLs and may ultimately limit the effort on more abundant stocks. These species have been referred to as "choke stocks". Comparing FY2009 landings to the FY2010 commercial ACLs (combined sector and common pool) provides some indication of which species may be expected to be most problematic in this regard (Table 1.1). Choke species include Gulf of Maine (GOM) cod, GOM winter flounder, GB Yellowtail flounder, and, to a lesser extent, GB cod and GB winter flounder. The ACLs for the GB stocks, GB cod, in particular, are likely to constrain the ability to take advantage of the large GB haddock ACL.

The comparison of landings of groundfish stocks by vessels in sectors between FY2009 and FY2010 reflect reductions in catch limits and constraints in catching stocks with high ACLs. GB cod and haddock and redfish accounted for almost all of the increases in commercial landings during FY2010, which indicate some success in targeting these species (See Table 1.2). Revenues did not follow the same scale from FY2009 to FY2010 as changes in landings. Total groundfish revenue declined by only 2% compared to the 16% decline in landings due to shifts in composition of landings and ex-vessel price increases, especially for cod.

This report estimates the number and percentage of vessels that at least broke even in each of seven categories of vessels based on gear and vessel size engaged in the groundfish fishery during FY2009 and FY2010. A vessel broke even if its annual total revenue equaled its annual total cost, where total revenue was revenue from all commercial landings for a fishing year, and total costs were all costs paid in the same fishing year, including trip costs, marketing costs, labor costs, fixed costs, and payments made by vessel owners to cover sector costs. Vessel owners paid sector costs only in FY2010.

While leasing costs and revenue were likely significant for many vessel owners, lack of data on intra-sector trading as well as uncertainty in the price data submitted for inter-sector trades makes inclusion of leasing costs difficult for this break-even analysis. For this reason, leasing costs and revenues were not included in the breakeven analysis. A discussion about the potential impacts of leasing is included in the Discussion section of this report.

[3] The biological reference points for pollock were changed in FY2010 as a result of a recent stock assessment. The revised reference points resulted in substantial increases in the OFL, ABC, and ACL for pollock. Given the revised scientific understanding of pollock status, it is likely that the 2009 target TAC would have been larger than it was.

Table 1.2 Comparison of New England Groundfish Landings, Revenues and Prices for FY2009 and FY2010

Stock	2009 Landings (000 lbs)	2010 Landings (000 lbs)	% Change	2009 Revenue ($000)	2010 Revenue ($000)	% Change	2009 $/lb	2010 $/lb	% Change
GB Cod	8,479	6,940	-18%	9,030	10,370	15%	$1.06	$1.49	40%
GOM Cod	18,486	9,618	-48%	20,037	15,847	-21%	$1.08	$1.65	52%
Plaice	3,336	2,985	-11%	4,385	4,336	-1%	$1.31	$1.45	10%
GB Winter Flounder	3,948	3,020	-24%	6,506	6,024	-7%	$1.65	$1.99	21%
GOM Winter Flounder	527	223	-58%	885	415	-53%	$1.68	$1.86	11%
Witch Flounder	2,161	1,464	-32%	4,216	3,537	-16%	$1.95	$2.42	24%
CC/GOM Yellowtail	1,272	1,142	-10%	1,945	1,562	-20%	$1.53	$1.37	-11%
GB Yellowtail	2,200	1,499	-32%	2,585	1,778	-31%	$1.17	$1.19	1%
SNE/MA Yellowtail	346	359	4%	561	467	-17%	$1.62	$1.30	-20%
GB Haddock	18,737	20,839	11%	15,437	19,511	26%	$0.82	$0.94	14%
GOM Haddock	1,396	942	-33%	1,694	1,357	-20%	$1.21	$1.44	19%
White Hake	5,775	6,570	14%	4,028	4,831	20%	$0.70	$0.74	5%
Pollock	18,157	13,775	-24%	10,941	9,974	-9%	$0.60	$0.72	20%
Redfish	3,283	4,405	34%	1,608	2,528	57%	$0.49	$0.57	17%
Totals	88,103	73,782	-16%	83,858	82,537	-2%	$0.95	$1.12	18%

Source. http://www.nero.noaa.gov/ro/fso/reports/2009_2010_Comparison.htm, the Combined Sector and Common Pool Groundfish by Stock. Landings converted to landed weight

The purpose of this report is to identify the financial condition of vessels in vessel categories for FY2009 and FY2010. Estimation of the number and percentage of vessels that broke even measures the performance of the multispecies fishery for FY2009 and FY2010, but does not necessarily measure the performance of sector management because other changes occurred in the fishery and in fishery management that were not considered. In addition to the change in management and institution of hard catch limits, two other financial variables changed substantially in FY2010. Fuel costs, a major cost for groundfish fishing trips, increased sharply during FY2010. Data from observed groundfish trips from FY2009 and FY2010 show an average increase in price from $2.58 during FY2009 to $3.35 during FY2010. Fish prices for most New England fish stocks also increased sharply during FY2010, which would have boosted vessel revenue. The weighted average of groundfish prices increased by 18% during FY2010, for example.

The cumulative effects of management and external changes affected the financial viability for New England groundfish vessels in complex ways that are difficult to untangle. Sector management allowed fishermen to selectively target higher priced fish stocks at opportune times that may have increased revenues and mitigated reductions in ACLs. Low ACLs in fish stocks that have technical and biological interactions with high ACL stocks may have constrained the catch of those stocks under a management system of hard catch limits. Increased flexibility to target species under sector management without DAS restrictions and trip limits may have dampened the effects of higher fuel prices.

This report includes sections on Methods and Data, Results, and Discussion.

II. Methods and Data

2.1. Break-Even Analysis

Break-even analysis is a business tool usually used to project the amount of units sold over some time period (usually a year) necessary to cover all costs paid over the same period. Projections are necessary for output prices, variable costs, fixed costs, and any technical changes in the production process.

For economic impact analysis of fishery management actions, fishing effort or landed pounds are the units typically used for estimating break-even points. For example, the Environmental Impact Statements for Amendments 13 and 16 of the Multispecies Fishery Management Plan estimated break-even as the average number of DAS necessary for vessels in specific categories to meet fixed costs after paying trip costs and estimated crew salary (Multispecies FMP Amendment 16, NEFMC). Revenue and cost values were projected forward using models using data from past values for these variables. The break-even analysis for these management actions estimated the Contribution Margin per day fished (the projected average gross revenue per day fished minus projected average trip costs including crew payments per day fished) to calculate the number of days fished that would be necessary to equal estimated annual fixed costs for various management options. Costs were averaged for break-even because trip costs and fixed costs were not available for all vessels. Given the large variance in fixed costs, Amendment 16 constructed estimates of average fixed costs for vessels with low, medium, and high fixed costs and then estimated break-even DAS necessary for each of these vessel categories. Note that these vessel categories were only hypothetical because then, as now, it was not possible to reliably link vessel activity levels with fixed costs.

While this report uses similar methods in estimating break-even, we estimated annual vessel revenue necessary to cover costs for the same fishing year for the vessel, including trip costs (including crew payments), marketing costs, fixed costs, and payments made by vessel owners to cover sector costs in order to estimate the number of vessels and percentage of vessels that broke even or better by vessel category. Fixed costs are generally considered costs that do not vary with output, such as insurance, permit fees, association costs etc. However, some costs vary with output, such as repairs and maintenance, yet are not associated with any specific trip. For this report, we will refer to these costs collectively as overhead.

As a secondary goal, this report discusses the economic impact on break-even for sector vessels from transferring more of the sector costs to vessel owners, such as monitoring costs that are currently paid by NMFS.

Unlike estimates of profitability, break-even analysis does not include the opportunity cost of capital (also called the return to equity) as a cost. More specifically, break-even analysis includes payments for repairs, maintenance, and interest on loans as costs, but does not include payments to vessel owners for their equity. Break-even analysis is more similar to cash flow than profitability.

For this report, we estimated the number of vessels in each vessel category whose revenues for FY2009 and FY2010 at least equaled all costs paid by vessel owners for FY2009 and FY2010. While it was not necessary to forecast revenues and costs because we are estimating break-even for past years, similar processes were used to collect revenue and cost data as were used to forecast break-even for previous management actions. We added some categories of cost that were not used for break-even analysis for previous management actions, specifically marketing costs and sector costs.

In order to estimate break-even points, we selected vessel categories and vessels for each category, estimated trip costs, labor costs, overhead costs, marketing costs, and sector costs paid by member vessels.

2.2 Vessel Selection

The break-even analysis was developed for vessel categories from the population of vessels that met three criteria. First, they had to have landed one or more pounds of allocated groundfish. Second, they had to have used either gillnet, bottom longline, or otter trawl as the primary gear when harvesting allocated groundfish[4]. For this criterion, primary gear was determined by summing allocated groundfish revenue by gear used and selecting the gear associated with the majority of allocated groundfish revenue. Third, the vessel had to have the same moratorium right ID (MRI) for the entire fishing year. These criteria were applied for both fishing years 2009 and 2010 resulting in a total of 468 vessels during 2009 and 357 vessels during 2010. These vessels represent 83% and 79% respectively of all vessels that landed groundfish on at least one trip during 2009 and 2010. Note that since the criterion was applied separately for each fishing year even though a significant number of vessels fished in both years there were some vessels included in our 2010 sample that did not fish for groundfish during 2009 and some vessels that fished during 2009 that did not fish during 2010. Furthermore, since the selection criteria removed about 20% of vessels that fished for groundfish during either 2009 or 2010, nothing should be inferred from our study about the financial position of vessels that were not included in the analysis. Our analysis does include the majority of vessels participating in the groundfish fishery.

As was done in previous analyses conducted in the EIS for Amendments 13 and 16 the gear categories were further broken out by vessel size. Size categories were selected by reviewing the

[4] Handline gear were initially included in the gear selection criterion, but were subsequently dropped from the analysis due to a lack of adequate cost data.

size classes used in prior analyses and an evaluation of the size distribution of active vessels in more recent years. Based on this assessment approximately one-half of both longline and gillnet size categories were less than 40 feet in length overall (LOA) while the other half were above 40 feet LOA. For otter trawl vessels, we based the size categories for trawlers on separation between vessels that usually fish near shore and multi-day trip vessels that usually fish off shore. These are essentially different fisheries with different revenue and cost structures.

Table 2.2.1 Descriptive statistics for vessel categories.

Vessel Category	Number of Vessels	Average Length	Average Gross Tons	Average Horsepower
		Fishing Year 2009		
Gillnet < 40 Feet	58	35	14	278
Gillnet >= 40 Feet	83	44	27	359
Longline < 40 feet	10	35	16	316
Longline >= 40 Feet	11	45	31	411
Trawl < 50 Feet	85	45	24	292
Trawl >= 50 and <= 65 Feet	80	57	60	390
Trawl > 65 Feet	141	77	133	627
		Fishing Year 2010		
Gillnet < 40 Feet	42	36	15	297
Gillnet >= 40 Feet	66	45	27	345
Longline < 40 feet	8	36	16	356
Longline >= 40 Feet	9	42	22	422
Trawl < 50 Feet	58	42	26	297
Trawl >= 50 and <= 65 Feet	63	57	61	384
Trawl > 65 Feet	111	77	135	643

Examination of the relationship between percentage of days fished on day trips and size of vessel showed breaks at 50' and 65' in length (see scatter plot in Appendix, Figure A1). Vessels below 50' showed the highest percentage of days absent on day trips, vessels between 50' and 65' showed predominance of days absent on day trips, and vessels greater than 65' showed predominance of days absent on multi-day trips.

The descriptive statistics for the vessel categories are depicted in Table 2.2.1 (above).

2.3 Fishing Effort and Revenue Data

Fishing effort in terms of trips and days fished on groundfish and non-groundfish trips were calculated from the Vessel Trip Reports. Groundfish trips were defined as any trip where one or more of the allocated groundfish species were landed. A non-groundfish trip was defined as any trip where none of the allocated groundfish species was landed. Average total fishing effort, in terms of days absent, declined between FY2009 and FY2010 for all categories except longliners and trawl vessels greater than 65' (Table A1 in the Appendix). On average, fishing effort shifted to non-groundfish trips. Average total days absent on non-groundfish trips increased for all

vessel categories while average total days absent on groundfish trips declined for all vessel categories except for trawl vessels greater than 65'.

Dealer reports were used to estimate average total vessel revenue and average revenue from groundfish trips and non-groundfish trips. We summed the values for all trips taken during FY2009 and FY2010 into categories of groundfish and non-groundfish revenue for each vessel. Average total revenue increased for all vessel categories from FY2009 to FY2010 except for gillnet vessels greater than 40 feet (Table A2 in the Appendix). The pattern of revenue between groundfish and non-groundfish trips shifted toward non-groundfish trips reflecting the pattern of effort. The average percentage of non-groundfish revenue in total revenue increased for all vessel categories.

2.4 Trip Costs

In addition to collecting data on catch and taking biological samples, observers collect data on trip costs (ice, fuel, oil, water, food, bait, and miscellaneous supplies) from the vessel's captain during the observed trip[5]. Observers collect information on total dollars spent on the trip for oil, water, food, bait and miscellaneous supplies including hooks, twine, knives, gloves, cleaning supplies, etc.

We selected data from observed groundfish trips that used sink gillnet, bottom longline, or otter trawl from calendar years 2008 to 2011 for day trips and multi-day trips for each vessel category were used to estimate trip costs. Data from these years were pooled in order to obtain sufficient sample size to estimate trips costs for all combinations of single day and multiple day trips for all vessel categories. Trip cost data collected during 2008, 2010, and 2011 were converted to 2009 dollars using the CPI to estimate 2009 trip costs. In a similar manner, 2008, 2009, and 2011 cost data were converted to 2010 dollars.

For ice (tons) and fuel (gallons), observers collect information on both the quantities used for the trip and the price paid for each. Trips where either tons of ice or gallons of fuel were not recorded were eliminated from the sample because ice and fuel are used for every fishing trip. Average monthly fuel price and monthly price of ice were substituted for missing prices in the data. Categories of trip costs were summed for each trip by vessel category. See Tables A3-A5 for sample descriptive statistics of trip costs by vessel category.

In order to compute the average for trip costs, average trip costs for day trips and for multi day trips were calculated separately. We computed average trip costs for day trips and average cost per day for multi-day trips for in 2009 and 2010 dollars. To estimate total trip costs these averages were multiplied by the sum of day trips and the sum of days absent for multi-day trips for each vessel.

Average trip costs for groundfish trips by gear/size category and trip type were applied to all trips, groundfish or non-groundfish, and for all gears that may have actually been used on any given trip. This simplifying assumption was adopted for two reasons. First, the break-even

[5] Trip cost data included data collected by the Northeast Fisheries Observer Program as well as data collected through the At-Sea Monitoring Program during 2010 and 2011.

analysis was conducted based on fishing year totals (revenue, trips, etc) and not on a trip-level basis. We readily acknowledge that a trip level analysis for trip cost would likely be more accurate, but would also have substantially increased the data and time required to conduct the analysis. Second, the overhead cost data (described in Section 2.6 below) were estimated for vessels that used either trawl, gillnet or longline gears. In order to match fixed cost by vessel with trip costs it was expedient to hold average trip cost constant across all trips.

2.5 Lay System

Fishermen are paid according to lay systems that vary between port and among vessels within a port. Two of the most common remuneration systems are a 60/40 split where 60% of gross revenue goes to the captain and crew and 40% goes to the vessel owner, and a 50/50 split between the owner and the captain and crew of net revenue after trip costs have been deducted. In the 60/40 lay system, trip costs are paid from the captain and crew share. Based on interviews with vessel owners and sector managers we found that the 50/50 split was the predominate lay system where trip costs are explicitly included. Under this system, trip costs including fuel, ice, food, etc., are deducted as well as any costs that are based on a per pound or per trip basis. These costs include marketing costs, auction costs, sector fees, and leasing costs.

2.6 Overhead Costs

In 2007, 2008, and 2009, the Northeast Fisheries Science Center (NEFSC) mailed questionnaires to vessel owners with federal permits covered by New England FMPs in order to collect overhead (fixed) costs. The questionnaire was framed to collect annual overhead costs for the previous year. For example, the survey mailed during 2007 asked for overhead costs incurred during 2006. Due to low and declining response rates the survey was discontinued after 2009. The return rate for surveys for all vessels fell from 21% in 2007 to 8% in 2009 (NEFSC, personal communication).

A total of 1,300 survey responses were returned by vessel owners from all fisheries: 635 during 2007, 430 during 2008, and 235 during 2009. We selected observations from the vessels that were included in the break-even analysis to assure that the data used to estimate average overhead costs would come from vessels that were included in the analysis and adjusted values to 2009 and 2010 based on the CPI. This procedure narrowed the available data to 267 observations. Since the survey was implemented for three years there was more than one observation for some vessels, because they may have returned the survey in more than one year. We averaged multiple observations from the same vessel into a single observation leaving a final sample size of 193 vessel observations.

The fixed cost survey collected data on a number of cost categories, some that the majority of vessel owners may be expected to incur every year (travel, permit fees, communication, etc.) while other costs, such as major overhauls, engine replacements and other improvements, may not be incurred in every year.

Safety costs were not listed on the fixed-cost survey, but some vessel owners specifically listed safety costs as either an improvement or investment or in the "other expense" category. Unlike some repair and maintenance expenses that may be discretionary or perhaps deferred, vessel owners are required to maintain safety equipment according to the applicable schedule.

Averaging safety costs listed in the other expense category resulted in a zero statistical mean for some vessel categories and very low numbers for others, far lower than would cover legally mandated safety requirements. We averaged safety cost responses from the fixed cost survey over the vessels that specifically listed safety costs, which resulted in $1,233 for all vessels.

Placing the cost in the correct category was another problem with these data. From interviews, we concluded that some owners considered repairs as maintenance and others considered maintenance as repairs. In order to mitigate these problems, we combined all categories of overhead costs from the same observation into a single observation for overhead cost without excluding any observation with zero cost in any of the categories of overhead costs. See Table A8 in the Appendix for descriptive statistics of overhead costs by vessel category.

Data for overhead costs present the most problems because samples are small relative to the populations, standard deviations are large, especially in individual categories of overhead costs, observations are not normally distributed, often have large outliers, and observations cover only 2006 – 2008. The overhead cost data exhibits large variance as well as a tendency to be skewed for most vessel categories (more observations below the mean than above the mean). Additionally, we could not come up with any reliable way to match up vessels that were likely to have high overhead costs with vessels that have comparatively low overhead costs. For these reasons, we used a Monte Carlo simulation on the overhead sample for each vessel category to assign overhead costs. Monte Carlo simulation chooses observations randomly and converts the choices into a frequency distribution for each vessel in the vessel category. We ran the Monte Carlo simulation 1,000 times to determine the distribution of results.

2.7 Marketing Costs

Interviews with vessel owners and survey responses indicated that marketing costs (trucking and auction fees) may be significant for break-even analysis, but neither auction nor trucking fees were included in the trip or overhead costs collected by observers or by any other NMFS survey. The information from vessel owners and surveys indicated that trucking fees in FY 2010 were $0.08 - $0.12 per pound for landed species that were trucked to other ports for sale or processing, which we averaged to $0.10 per pound. Previous studies of New England processors showed that almost all processing of groundfish takes place in Boston and New Bedford (Georgianna et al, 2006).

To estimate the proportion that would be subject to a trucking fee we calculated the percentage of total regional landings outside of these ports by vessel category and by fishing years 2009 and 2010 (See Appendix A, Table A6). These proportions were held constant for all vessels to simplify the analysis. Trucking fees for each vessel was calculated as the average trucking fee for that vessel category (total annual landings times the average trucking fees ($0.10) times the proportion of landings subject to trucking all divided by the number of vessels in the vessel category).

Auctions also charge fees; the average derived from survey and interview responses was $0.03 per pound. Annual total auction fees were estimated by first calculating the proportion of total regional landings that were landed at the display auctions in Portland, Gloucester, Boston, or New Bedford (See Appendix A, Table A6). Separate estimates were calculated by vessel

category and fishing year. As was the case for trucking fees these proportions were held constant for all vessels in each category to simplify the analysis. Auctions fees were calculated as the product of total landings of all species, the auction fee, and the proportion landed at auction. Interviews also reported that some dealers charge fees, but we were unable to estimate these fees because we could not reliably determine which dealers charge fees.

2.8 Sector Costs

Fees paid by vessel owners to sectors are private contracts, which vary by sector. However, the majority of vessel owners are members of one of the Northeast Sector Service Network's (NESSN) sectors and have similar fee structures. From interviews, the NESSN sectors required a onetime $10,000 membership fee to help recoup start-up costs. Vessel owners had the ability to pay this membership fee in increments of $2,500 per year (over a four year period). In addition to the membership fee, most sectors charged a fee per pound of landed groundfish during FY2010. These fees were used to cover the cost of operating the individual sector and the services provided by NESSN. This fee was variable, based on the volume of groundfish landings within each sector. Based on the interviews with NESSN sector members, the fee in FY2010 ranged from $0.04 - $0.10 per pound. Vessels in sectors with lower groundfish landings are required to pay more per pound as the costs for managing sectors were relatively similar across sectors.

In order to capture the variable effect of sector fees on different individuals and sectors a simplifying assumption was made. Specifically, an average fee of $0.04 was applied to landed pounds of groundfish for each vessel in a sector. In this manner, the sector costs differed for each vessel depending on the total landed pounds of allocated groundfish even though the average per pound fee was held constant. The sector membership fee was treated as an additional overhead cost. The fee was assumed to be paid out over four years and was set at $2,500 for all vessels.

Note that the sector fee on a per pound basis does not necessarily have the same proportional effect on all vessels. This is illustrated by applying the per pound fee to average groundfish landings and then dividing groundfish revenue by the resulting product to calculate the sector fees as a share of groundfish revenue (Table 2.6.1). This shows that the per-pound fee has different impacts on vessels depending on the composition of groundfish revenues. That is, the sector fee is lower as a share of groundfish revenue for vessels that, on average, land higher valued species and vice versa for vessels that land lower value groundfish species.

2.9 Leasing Costs and Revenues

Sectors were only required to report trades between sectors; transactions that occurred within a sector were not reported. The reported price of quota varied greatly; some transactions involved a transfer of money, others were swaps of species, or barters for trade services. In addition, some species, for which an excess of quota were available, were often exchanged at no cost. Due to the complexity of the leasing market and lack of data the cost and revenue associated with the exchange of quota has not been included in the break-even analysis. However, the cost and revenue from leasing may be substantial for many vessels. Lease prices for some stocks exceeded the price vessels would get at auction, because the benefit of acquiring quota in a stock in the portfolio of stocks necessary to fish could increase the catch of other species. See The Effects of Leasing in the Discussion for more information.

2.10 Ground-Truthing

We were concerned about the quality of the fixed cost data due to low return rates during the most recent years the survey was conducted, and because there was no information from FY2009 or FY2010. Preliminary work done by the NEFSC suggests that the fixed cost data collected is not always representative of the fleet segments, particularly for the larger vessels. Statistical tests showed the returned surveys were not representative of the population in terms of vessel length for some vessel categories. Note we partially address this issue by selecting data collected from vessels consistent with the size classes used in the break-even analysis. Nevertheless, the larger vessels are underrepresented in the NEFSC data.

Due to these concerns, a ground-truthing exercise was conducted. The fixed cost data provided by NMFS was utilized as a starting point for the ground-truthing. Data on fuel consumption was also provided to vessel owners for feedback. Each vessel owner interviewed was provided a sheet with the average fixed costs by category, such as insurance, maintenance and safety equipment (see Appendix B). The averages provided were intended to be representative of a range of vessel sizes for each gear type (the interviewed owners were shown the information that should be representative of their vessel). The vessel categories used throughout this analysis were followed.

In addition to interviews summary data was compiled from a parallel study conducted with the South Shore (MA) groundfishermen, specifically Sector 10. Twenty-six surveys were collected from this sector. Each survey included a section on fixed costs; the information provided in this section was used in the ground-truthing exercise. Individual survey responses and interview records will not be presented in this document to maintain confidentiality. However, the range of cost estimates collected in the interviews is provided in Appendix B. When only one estimate or no information was collected we noted N/A. Zero indicates that some vessels do not incur the cost.

During interviews most participants cited that the costs appeared to be underestimated for 'Improvements and Investments', 'Vessel Insurance', and 'Repair and Maintenance' categories. This was particularly true for the large otter trawl vessels (>75ft)[6]. In the final report the NEFSC data have been utilized, but adjusted to reflect 2009 and 2010 prices, this has improved the correspondence between the ground-truthing responses and NEFSC data. Now the overhead costs utilized in the analysis fall within the range of values provided in the interviews.

There is a significant amount of variability in some of the overhead cost categories for both the ground-truthing results and the information collected by NOAA. There are a variety of ways to explain this variability, and it is likely a combination of all sources of variation. The first source of variability is that the questions and categories are not clear. We encountered this problem in the ground-truthing exercise particularly between improvements, investments, and repair and between maintenance and haul out. The second source of annual variation is that vessel owners

[6] The vessel sizes for the ground-truthing do not correspond to the vessel categories used in the report, because at the time it was done we did not anticipate using another size definition and it is not possible to reconstitute the sample in the way that can be done with the other data sets used in the BE analysis.

may choose to defer some of these costs due to their financial constraints, e.g. low revenues or inaccessible credit. The third source may be that some costs only apply to certain vessels, e.g. not all vessel owners belong to associations; not all vessel owners incur non-crew labor services etc. Other categories such as communication, permit fees, and safety (not included as a specific item in NEFSC survey) have much less variability probably because they are necessary expenses (due to regulations, or practicality).

In addition to the overhead costs discussed above, vessel owners interviewed were asked to list any additional overhead costs they incurred that were not included on the list. Prior to conducting the interviews we added safety equipment as a line item as previous feedback suggested that this was a significant cost that should be included. In addition to safety equipment interviews revealed that shore-side power, and crew benefits as two line items that should be included in the future. From these interviews it seems that future surveys may benefit from the addition of a section on shore side costs (similar to trip costs) as many vessels now pay for maintenance on the vessel when it is not fishing, and VMS requirements make it necessary to keep power on the boat at all times. The amount paid for these costs was not obtained from these interviews, but it is clear that this component is critical to understanding the costs of owning and operating a fishing vessel. It should be noted that some of these costs may already be imbedded in the analysis in line items such as mooring and dockage fees, or in the 'other' category.

III. Results

Table 3.1 reports the numbers and percentages of all vessels included in the break-even analysis in each vessel category that at least broke even with and without sector costs in FY2009 and FY2010 using the mean of the values from the Monte Carlo simulation. For Numbers of Vessels, the values shown in parentheses denote the upper (+) and lower (-) bound estimate of number of vessels based on a 90% confidence interval constructed as the average difference between the mean and the number of vessels above break-even at the 10^{th} and 90^{th} percentiles of the simulation distribution. Constructed in this manner, the confidence interval is a measure of uncertainty around the mean estimate. Percentages of vessels above break-even were evaluated at the mean. For these percentages the numbers in parentheses denote that upper and lower bound on the percentage of vessels above break-even evaluated at the 10^{th} and 90^{th} percentiles.

The mean values show higher percentages of vessels in most vessel categories breaking even in 2010 than in 2009. On a fleet-wide basis 49% (227 of 468) of vessels were above break-even during 2009 as compared to 55% (196 of 357) of vessels above break-even during 2010 after accounting for sector costs. Among the different vessel categories mean percentages of vessels above break-even were lower during 2010 as compared to 2009 for larger gillnet vessels ($\geq$ 40 feet) and for otter trawl vessels less than 50 feet. In other vessel categories the percentage of vessels above break-even after accounting for sector costs was higher during 2010 as compared to 2009. However, all of these should be interpreted with caution, because the uncertainty in any of these results is quite high. For example, in 2009, 51% (44 vessels) of the 85 trawl vessels less than 50 feet, were above break-even, yet it could have been as low as11% or as high as 80% based on a 90% confidence interval. In 2010, once sector costs are taken into account 50% (29 vessels) of the 58 small trawl vessels were above break–even, but it could have been as low as 12% or as high as 84%. For gillnet vessels < 40' the number of vessels that at least broke even

ranges from 18 vessels to 46 vessels in 2009 with corresponding percentages ranging from 37% to 86%. For 2010 including sector costs, the number of gillnet vessels < 40 ranged from 12 vessels to 38 vessels, with corresponding percentages ranging from 31% to 90%.

At a fleet-wide level this level of uncertainty means that while the average percentage of all vessels above break-even during 2009 was 49%, the percentage could have been as low as 35% or as high as 62%. Similarly, the fleet-wide average above break-even could have been as low as 39% or as high as 69%. Since the upper and lower bound estimates for 2009 and 2010 including sector costs for the fleet-wide average as well as all other vessel categories overlap one another, it is difficult to distinguish differences in performance between the two fishing years with or without sector costs. This level of uncertainty is primarily due to the inability to reliably match vessel categories with overhead costs caused by the high variability and the low number of observations from the fixed cost survey.

Table 3.1. Simulation Mean Number of Vessels Above Break-Even By Vessel Category and Fishing Year (Number in Parentheses Denotes 90% Confidence Interval

	Fishing Year 2009			Fishing Year 2010				
Vessel Category	Total Vessels	Number of Vessels Above Break-Even	Percent Vessels Above Break-Even	Total Vessels	Number of Vessels Above Break-Even Excluding Sector Costs	Percent Vessels Above Break-Even Excluding Sector Costs	Number of Vessels Above Break-Even Including Sector Costs	Percent Vessels Above Break-Even Including Sector Costs
Gillnet < 40 feet	58	32 (±14)	55% (37-86%)	42	26 (±12)	62% (36-90%)	25 (±13)	59% (31-90%)
Gillnet >= 40 feet	83	49 (±35)	59% (11-95%)	66	39 (±26)	59% (12-90%)	37 (±25)	56% (12-86%)
Longline < 40 feet	10	4 (±2)	36% (10-50%)	8	4 (±2)	48% (25-75%)	4 (±2)	43% (25-75%)
Longline >= 40 feet	11	6 (±4)	55% (27-91%)	9	6 (±3)	62% (33-89%)	6 (±3)	61% (22-89%)
Trawl < 50 feet	85	44 (±29)	51% (11-80%)	58	30 (±22)	52% (12-88%)	29 (±21)	50% (12-84%)
Trawl >= 50 and <= 65 feet	80	37 (±30)	46% (9-85%)	63	35 (±24)	55% (16-92%)	34 (±24)	54% (14-90%)
Trawl > 65 feet	141	55 (±38)	40% (13-67%)	111	65 (±35)	59% (21-84%)	63 (±35)	56% (21-84%)
Totals	468	227 (±62)	49% (35-62%)	357	204 (±55)	57% (41-72%)	196 (±54)	55% (39-69%)

In terms of numbers of total vessels on average, more vessels were above break-even during FY2009 (227) as compared to FY2010 (196) including sector costs. It may also be said that fewer vessels were below break-even during 2010 (153) than was the case during 2009 (241). This is, of course, an artifact of having different numbers of vessels in each year of the break-even analysis. Percentages tend to remove the effect of different baselines and may provide a more consistent indicator of change in break-even. The number of vessels above break-even during 2009 tended to be larger than in 2010 for nearly all vessel categories except for longline vessels and trawl vessels greater than 65 feet. For longline vessels the mean number of vessels above break-even was the same in both 2009 and 2010 while the mean number of large trawl vessels above break-even increased from 55 vessels during 2009 to 63 vessels in 2010 including sector costs. However, as was the case for comparisons among vessel categories, the uncertainty in our estimates is large and the upper and lower bound estimates for vessel totals overlap. For example, the number of large trawl vessels (above 65 feet) above break-even during 2009 may have been as many as 93 or as low as 17 vessels. The uncertainty in the number of large trawl vessels breaking even ranges from 28 to 98 vessels.

At least part of the difference between 2009 and 2010 is due to the differences in numbers of vessels that met our criterion, but is also due to reduced numbers of vessels participating in the groundfish fishery. Specifically, of the vessels included in our study data, 111 fewer vessels fished for groundfish in FY2010 than in FY2009. A total of 331 vessels fished for groundfish in both years. Twenty-eight vessels fished for groundfish in FY2010, but not in FY2009, and 137 vessels fished for groundfish in FY2009 but not in FY2010. Of these 137 vessels, 80 fished during FY2010, but did not land any groundfish while 57 of the vessels that did fish during 2009 did not fish at all during FY2010.

The 111 vessels that left the groundfish fishery in 2010 were included in the break-even analysis for 2009, but were not included in the 2010 analysis because these vessels targeted a wide assortment of other fisheries, which would have made sample size for observer data on trip costs and overhead costs from these vessels too small when spread out across different fisheries. These data and break-even analysis also does not indicate the cause for these vessels leaving the groundfishery in 2010 nor do we know the reasons why the 57 vessels that did fish for groundfish during 2009 did not fish at all during 2010.

Table 3.2 reports the numbers and percentages of all the study vessels in sectors and in the common pool that caught groundfish that at least broke even with and without sector costs in FY2009 and FY2010 using the mean of the values from the Monte Carlo simulation. Note that the 90% confidence intervals are also high relative to the mean for both common pool vessels and sector vessels.

Table 3.2 Simulation Mean Number of Vessels Above Break-Even for Common Pool and Sector Members for Fishing Years 2009 and 2010 (Number in Parentheses Denotes 90% Confidence Interval

	Fishing 2009			Fishing Year 2010				
	Total Vessels	Number of Vessels Above Break-Even	Percent Vessels Above Break-Even	Total Vessels	Number of Vessels Above Break-Even Excluding Sector Costs	Percent Vessels Above Break-Even Excluding Sector Costs	Number of Vessels Above Break-Even Including Sector Costs	Percent Vessels Above Break-Even Including Sector Costs
Common Pool	94	34 (±13)	36% (22-50%)	68	30 (±11)	45% (29-60%)	N/A	N/A
Sector Members	374	194 (±51)	52% (38-66%)	289	174 (±45)	60% (44-75%)	167 (±46)	58% (42-73%)

IV. Discussion

4.1 Break-even Analysis

While Table 3.2 suggests that a greater percentage of both common pool vessels and sector vessels broke even in FY2010 relative to FY2009, the uncertainty in the break-even results make definitive conclusions regarding financial performance difficult to support with or without including sector costs. Available data on overhead costs in particular hamper our ability to reliably ascertain the financial condition of the vessels included in the break-even analysis. Nevertheless, even though we cannot be certain of the reasons, it is clear that fewer vessels participated in the groundfish fishery during FY2010 than did so during 2009. It is also clear that under any circumstances the results show large numbers and percentages of vessels not breaking even in either FY2009 or FY2010. This raises the question of how vessel owners could keep their vessels fishing over two years and perhaps more without covering their costs, especially when credit is often difficult for vessel owners to obtain. There are several possible answers to this question.

It may take more than a year or two for vessels to leave the fishery. Vessel owners may draw on personal resources to cover costs, for example. If some overhead costs have to be paid if the vessel fishes or not, e.g. a mortgage on the vessel, then vessel owners will continue to fish their vessels if revenues cover trip costs and those overhead costs that are required for fishing. Other possibilities may be that large overhead costs, such as vessel maintenance may be delayed or vessel owners may reduce crew share or shift costs to crew share. Vessel owners who skipper their vessels could reduce the share that they receive or apply their crew share to vessel costs. Some owners may own multiple vessels or own other vessels engaged in other more profitable fisheries and use these profits to subsidize less profitable vessels. These and any number of other strategies may explain how vessels that may otherwise be expected, given limited available data or a purely economic calculus, to go out of business.

We also made several assumptions about trip costs that would affect break-even. We assumed that trip costs per day for non-groundfish trips were the same as trip costs per day for groundfish trips. For vessels that use the same gear for all trips this assumption is reasonable. For vessels that use different gears for non-groundfish trips, costs would be overestimated for gears that may be less costly and underestimated for gears that are more costly. We held trip costs constant across trip types because we chose to aggregate data for the entire fishing year rather than do a trip-level analysis that would have required developing estimates of trip costs for multiple gear types.

Break-even analysis and any other financial analysis require accurate cost data; the low scores for accuracy from these results show clearly the importance of accurate data. The financial condition of the multi-species fishery cannot be estimated with even modest accuracy without more complete data collection. If reliable annual estimates of the financial condition of the groundfish fishery are of interest to the NEFMC or other interested management bodies then greater attention will need to be paid to cost data collection, and overhead costs in particular. There are efforts underway to collect more accurate cost data. The NEFSC is reviewing methods to collect overhead data, and also investigating more refined statistical methods to estimate trip costs. These models would provide a more accurate estimate of trip costs that would account for differences across vessels. Sector reports that we used for the following section on leasing also offer promising methods to collect cost data.

4.2 Effects of Leasing Costs

With the transition to ACLs and accompanying formation of 17 sectors under Amendment 16, leasing of ACE within and between sectors was allowed to enable sectors and their members to reconcile initial allocations with desired fishing strategies by buying and selling ACE. Leasing between sectors was regulated and recorded. Leasing within sectors was neither regulated nor recorded in order to give vessel owners within sectors flexibility in their business plans.

While there are gains from trade for both parties, the value of the leasing transaction is neutral in terms of accounting; sellers receive the same amount as buyers pay, excluding transaction costs. However, buying ACE has implications for the financial position of any given fishing business depending on a number of factors including initial ACE allocations, lease prices, planned fishing, and access to capital. To provide a reliable estimate of these effects on break-even position for FY2010 we would need to know both in-flows and out-flows of leased ACE by vessel, whether these trades were monetary or swaps of one species for another, the price paid and received, and whether leased-in ACE costs were treated as trip costs and, therefore, partially paid by crew. Data at this level of detail are simply not available at this time. For this reason, we cannot provide a formal analysis of leasing impacts on break-even. Nevertheless, we do have sufficient data to estimate the in-flow of ACE that would have been required for the vessels included in the break-even analysis. This estimate was obtained for each vessel by summing catches during FY2010 and subtracting the initial ACE by stock for each vessel. A positive value means that FY2010 catch was greater than the vessels initial ACE. Some vessel owners may have access to ACE through ownership of multiple vessels or multiple companies either in their own right or in affiliation with other owners. Ignoring the ability to access ACE through intra-company transfers may overestimate leasing requirements. For this reason the trading requirement was determined

by summing the combined ACE for all vessels (whether they fished or not) that were part of a common ownership group where ownership groups were determined by matching affiliated businesses with affiliated people (business owners) in the NERO permit application data.

During 2010, the 357 vessels included in the FY2010 break-even data caught (landings plus discards) a combined 13.5 million pounds over their initial allocations of ACE (See Appendix A, Table A9). The 13.5 million pounds represented 23% of total catch by our sample vessels would have had to been acquired either through monetary or in-kind trade. Gulf of Maine cod represented the largest need for all gillnetters, small longline, and for small otter trawl vessels. Georges Bank cod represented 84% of the ACE need for larger longline vessels. For mid-size and large otter trawl vessels the stocks with the largest trading needs were GB cod, GOM cod, GB winter flounder, white hake, and pollock.

Since not all vessels had an estimated overage during FY2010 for any given stock, or for any stock the average need was calculated as the total need divided by the number of vessels included in each category (See Appendix A, bottom half of Table A9). The average need to cover the gap between FY2010 ACE and catches ranged from 1,456 pounds of all stocks combined for longline vessels 40 feet and above to 207,586 pounds for large otter trawl vessels. The vehicle through which these needs may have been met is uncertain, as is the cost that may have been incurred.

Sectors submitted their phase 2 reports on September 2, 2011. The data contained in these reports offers some insight as to how vessels secured needed quota but less revealing about the price paid for quota. That is, the sector reports contain information on the type of compensation received (monetary, swapping fish for fish, gift without compensation, for example) for both inter- and intra-sector trades. These designations suggest that about 64% of all pounds in intra-sector transactions involved a monetary transaction whereas 81% of all pounds in inter-sector transactions were for monetary compensation (see Appendix A, Table A10). These data indicate that the majority of any ACE overage would most likely have involved a monetary transaction. Although, the sector reports do include some data on the value of some transactions there are a large number of transactions for which no lease price was reported or the transaction involved a block of stocks. In these cases the value of the entire trade may be reported which makes it difficult to ascertain how much any given stock may have been worth.

4.3 Effects of Subsidized Costs

The break-even analysis for FY2010 did not include costs of managing sectors not paid by vessel owners or crew. Some costs associated with the start-up and operation of sectors were subsidized by NOAA for FY2010. Each sector was given $18,824 for costs incurred from October 1, 2009 through December 31, 2010. This could be used for expenses such as manager salaries, office supplies, computers, printers, furniture, workers compensation, internet and phone services, and FishTrax maintenance. In addition, each sector received a grant for $46,305 for costs incurred from May 1, 2010 through June 30, 2011. This grant could also be used for the sector's operation costs. At-sea-monitoring was paid for by NMFS and dockside monitoring was also reimbursable up to $75,204. It is likely, in the near future, that these costs will be the responsibility of sectors, and their member vessels.

Interviews with sector managers indicated that the annual overhead costs to run one sector are expected to be $80,000 to $100,000. This amount covers items such as the sector manager's salary, insurance, workers compensation, office lease, internet, telephone, dockside monitoring, and other miscellaneous costs.

The cost of sector membership per vessel will vary depending on the composition of their sector, specifically how many vessels is the cost distributed among, and how much groundfish they catch. Currently the unsubsidized sector costs are paid as a per pound fee, members in sectors that have more boats and higher landings will pay less per pound and in total, less per year.

In addition to sector costs, vessels may be expected after FY2011 to pay for at-sea monitoring (ASM), which is a significant cost. The effect on specific individuals and sectors will likely vary. The potential cost of at-sea monitoring depends on the number of trips and trip duration. In FY2010 the target coverage rate for ASM was 30%. The combined ASM and Northeast Fisheries Observed Program (NEFOP) coverage rate was 38% (combined common pool and sector vessels). The realized rate for 2010 was 35% of trips and 35.9% of sea days. The coverage rate for trips varied by sector, ranging from 19.7% for the common pool to 45.2% for the Northeast Fishery Sector XII (NMFS, 2011). Approximately 76% of the overall coverage was provided by ASM which translates to an estimated 26.6% coverage rate for ASM alone. The target ASM coverage rate for FY2011 was the same as that for 2010, but the coverage rate over and above the 8% coverage planned by the NEFOP for 2012 (the year in which ASM costs would no longer be subsidized) was recently set at 17%.

In order to gauge the potential effect of observer costs on the fishery we estimated the average annual cost, which would have been paid by the vessels included in the break-even study in 2010, for ASM observers, if they had not been subsidized. The estimated cost for the at-sea monitors was based on the actual number of trips and trip duration by each of the vessels included in the break-even study that were covered by an ASM observer. It is probable that the number and duration of sector trips would have been different had the cost of at-sea monitors not been subsidized. Factoring these costs into trip planning may be anticipated to alter the expected net return from a sector groundfish trip as compared to a non-groundfish trip and may affect trip duration particularly as the cost of an ASM observer was based on a calendar day or any portion of a day. This means that using 2010 data as a measure of ASM costs may not be a predictor of what ASM costs may be once these costs become internalized to fishing trip economics.

Total sea days where an ASM observer may have been assigned to a trip was estimated by summing the number of groundfish day trips and the product of average trip duration rounded up to the nearest whole day for multi-day groundfish trips and the number of groundfish multi-day trips (see Appendix A, Table A11). This resulted in an estimate of 21,929 sea days taken by the vessels in the break-even analysis on 7,492 day trips and a total of 2,880 multi-day trips.

Given the estimated ASM coverage rate of 26.6% the estimated ASM costs during FY2010 was calculated as the product of the ASM coverage rate, the average cost per sea day ($630), and the total sea days. This calculation resulted in an estimate of $3.67 million which represents 4% of total groundfish revenue, 4% of total groundfish trip revenue, and 2% of total fishing revenue from all species including groundfish and non-groundfish trips (see Table 4.3.1). The impact of

having to pay for ASM may not have equal impacts on all segments of the groundfish fleet. Based on FY2010 activity, the ASM costs would have a greater impact on gillnet gear and small otter trawl vessels ranging from 7 to 10 percent of groundfish revenue. As a percentage of total fishing revenue, vessels in either small or large gillnet category would still be the most affected (5% of total revenue) since these vessels exhibit a high percentage of groundfish trip revenue of total revenue. This was not necessarily the case for small trawlers as the ASM costs were estimated to be 3% of gross revenue; as compared to 2% for both medium and large trawl vessels.

Table 4.3.1. Estimated ASM Costs as a Percent of Revenues for Vessels Included in the Break-Even Analysis

Vessel Category	Estimated ASM Cost	ASM Cost as % of Groundfish Revenue	ASM Cost as % of Groundfish Trip Revenue	ASM Cost as % of Total Revenue
Gillnet < 40 Feet	$356,443	10%	8%	5%
Gillnet >= 40 Feet	$723,778	8%	6%	5%
Longline < 40 feet	$39,381	5%	5%	3%
Longline >= 40 Feet	$39,549	5%	5%	2%
Trawl < 50 Feet	$259,749	7%	6%	3%
Trawl >= 50 and <= 65 Feet	$439,730	4%	3%	2%
Trawl > 65 Feet	$1,816,232	3%	3%	2%
Totals	$3,674,862	4%	4%	2%

Compared to the estimated costs for FY2010, the required 17% coverage rate for ASM would result in lower overall monitoring costs. At FY2010 activity levels for the vessels included in the break-even analysis the 17% coverage rate would have cost $2.35 million. This level would represent approximately 3% of FY2010 groundfish revenue and 1.4% of total fishing revenue.

Appendix A. Tables and Figures

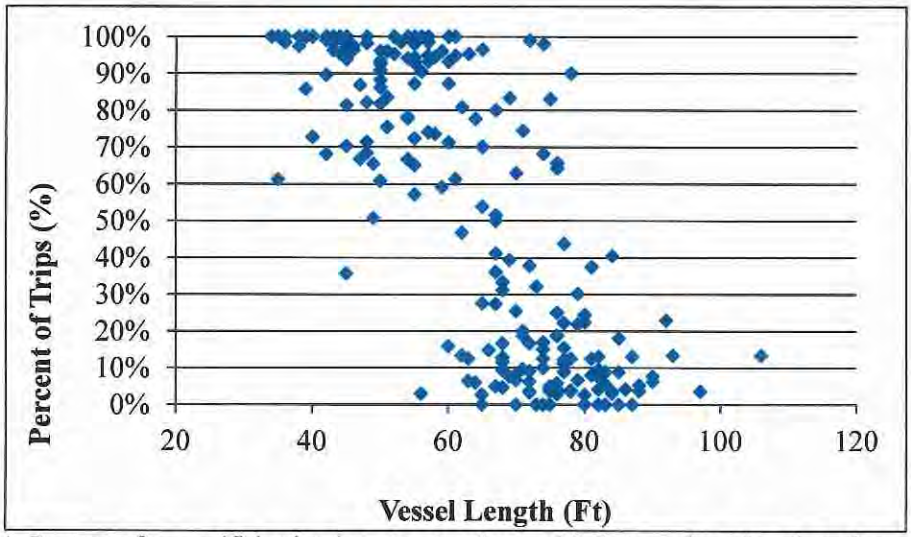

Figure A1. Percent of groundfish trips (on otter trawl vessels) that are day trips plotted as a function of vessel length. Day trips are categorized as those trips that last less than 24 hours.

Table A1. Average Effort for Vessels Included in the Break-Even Analysis by Vessel Category and Fishing Year

Vessel Category	Average Total Trips	Average Total Days Absent	Average Total Groundfish Trips	Average Total Days Absent on Groundfish Trips	Average Total Non-Groundfish Trips	Average Total Days Absent on Non-Groundfish Trips
			Fishing Year 2009			
Gillnet < 40 ft	112.4	53.5	86.1	38.9	26.3	14.6
Gillnet >= 40 ft	111.0	66.9	81.9	48.7	29.1	18.2
Longline < 40 ft	64.5	40.4	40.5	27.2	24.0	13.2
Longline >= 40 ft	68.6	51.3	24.5	25.8	44.2	25.4
Trawl < 50 ft	97.4	52.8	54.0	31.0	43.4	21.8
Trawl >= 50 and <= 65 ft	94.6	84.6	36.2	39.8	58.3	44.8
Trawl > 65 ft	42.3	134.8	20.2	85.7	22.1	49.1
			Fishing Year 2010			
Gillnet < 40 ft	82.0	40.2	48.8	22.9	33.2	17.4
Gillnet >= 40 ft	80.8	54.2	50.8	35.2	30.0	19.0
Longline < 40 ft	102.8	50.8	23.6	18.4	79.1	32.4
Longline >= 40 ft	94.4	52.8	16.7	20.2	77.8	32.6
Trawl < 50 ft	72.4	41.0	20.8	15.0	51.6	25.9
Trawl >= 50 and <= 65 ft	87.7	79.8	21.3	31.4	66.3	48.4
Trawl > 65 ft	40.8	146.8	18.7	91.4	22.1	55.4

Table A2. Average Revenue for Vessels Included in the Break-Even Analysis by Vessel Category and Fishing Year

Vessel Category	Total Revenue	Total Groundfish Trip Revenue	% Groundfish Trip revenue of Total Revenue	Total Groundfish Revenue on Groundfish Trips	% Groundfish Revenue on Groundfish Trips	Total Non-Groundfish Revenue on Groundfish Trips	Total Non-Groundfish Revenue on Non-Groundfish Trips
				Fishing Year 2009			
Gillnet < 40 Ft	$166,148	$129,715	78%	$108,128	83%	$21,587	$36,433
Gillnet >= 40 Ft	$248,829	$187,418	75%	$150,044	80%	$37,374	$61,411
Longline < 40 Ft	$126,702	$106,339	84%	$102,119	96%	$4,220	$20,363
Longline >= 40 Ft	$185,796	$111,726	60%	$105,471	94%	$6,255	$74,070
Trawl < 50 Ft	$160,306	$100,207	63%	$87,797	88%	$12,410	$60,099
Trawl >= 50 and <= 65 Ft	$320,914	$165,991	52%	$128,731	78%	$37,260	$154,923
Trawl > 65 Ft	$651,917	$438,525	67%	$319,589	73%	$118,936	$213,401
				Fishing Year 2010			
Gillnet < 40 Ft	$171,628	$107,362	63%	$87,176	81%	$20,186	$64,266
Gillnet >= 40 Ft	$243,556	$174,279	72%	$141,216	81%	$33,063	$69,278
Longline < 40 Ft	$183,894	$105,039	57%	$102,768	98%	$2,272	$78,854
Longline >= 40 Ft	$231,898	$97,051	42%	$95,250	98%	$1,800	$134,847
Trawl < 50 Ft	$160,876	$77,329	48%	$68,693	89%	$8,635	$83,548
Trawl >= 50 and <= 65 Ft	$414,567	$199,838	48%	$159,090	80%	$40,748	$214,729
Trawl > 65 Ft	$903,211	$584,720	65%	$481,741	82%	$102,979	$318,491

Table A3. Average Total Cost for Fuel, Ice, Water, Oil, Supplies, and Bait on Day Trips

Vessel Category	Sample Size	Mean	Standard Deviation	25th percentile	Median	75th Percentile	Coefficient of Variation
			2009				
Gillnet < 40	696	137.4	100.2	81.2	115.8	166.9	0.73
Gillnet >= 40	1088	190.3	306.6	130.6	167.0	215.6	1.61
Longline < 40	93	475.2	450.1	152.7	287.6	512.4	0.95
Longline >= 40	25	510.9	564.2	189.6	239.9	609.5	1.10
Trawl < 50	448	253.8	139.5	156.1	226.1	326.5	0.55
Trawl >= 50 and <= 65	367	317.8	163.3	221.6	283.5	373.7	0.51
Trawl > 65	84	366.9	216.3	202.6	306.9	469.3	0.59
			2010				
Gillnet < 40	696	140.0	102.1	82.7	118.0	170.0	0.73
Gillnet >= 40	1088	193.9	312.4	133.0	170.1	219.6	1.61
Longline < 40	93	484.1	458.5	155.6	293.0	522.0	0.95
Longline >= 40	25	520.5	574.8	193.2	244.4	620.9	1.10
Trawl < 50	448	258.6	142.1	159.0	230.3	332.6	0.55
Trawl >= 50 and <= 65	367	323.8	166.3	225.8	288.8	380.7	0.51
Trawl > 65	84	373.8	220.3	206.4	312.7	478.1	0.59

Table A4. Average Cost of Food per Crew on Day Trips

Vessel Category	Sample Size	Mean	Standard Deviation	25th Percentile	Median	75th Percentile	Coefficient of Variation
			2009				
Gillnet < 40	326	7.4	5.8	2.5	7.3	10.0	0.79
Gillnet >= 40	487	6.7	5.2	2.5	6.6	10.0	0.77
Longline < 40	54	9.2	7.7	4.8	7.9	14.7	0.83
Longline >= 40	19	8.4	6.1	3.3	9.8	14.7	0.72
Trawl < 50	233	7.6	7.4	0.0	7.5	10.0	0.98
Trawl >= 50 and <= 65	206	7.0	8.5	0.0	5.0	10.0	1.22
Trawl > 65	69	6.2	6.7	0.0	5.0	10.0	1.09
			2010				
Gillnet < 40	326	7.5	5.9	2.5	7.4	10.2	0.79
Gillnet >= 40	487	6.8	5.3	2.5	6.8	10.2	0.77
Longline < 40	13	2.7	3.5	0.0	1.6	4.9	1.28
Longline >= 40	54	9.4	7.8	4.9	8.1	15.0	0.83
Trawl < 50	19	8.6	6.2	3.4	10.0	15.0	0.72
Trawl >= 50 and <= 65	206	7.1	8.7	0.0	5.1	10.2	1.22
Trawl > 65	69	6.3	6.8	0.0	5.1	10.2	1.09

Table A5. Average Cost per day for Fuel, Ice, Oil, Water, Supplies and Bait on Multi-Day trips

Vessel Category	Sample Size	Mean	Standard Deviation	25th percentile	Median	75th Percentile	Coefficient of Variation
2009							
Gillnet < 40	27	144.7	98.0	77.2	142.0	172.8	0.68
Gillnet >= 40	124	245.1	81.6	187.4	238.1	298.3	0.33
Longline < 40	63	794.9	415.9	443.0	827.0	1135.0	0.52
Longline >= 40	90	662.0	348.2	423.7	563.9	892.6	0.53
Trawl < 50	123	291.7	234.7	103.5	187.0	427.0	0.80
Trawl >= 50 and <= 65	218	845.9	592.8	452.2	753.1	1185.0	0.70
Trawl > 65	1123	1361.3	574.6	976.7	1287.0	1682.9	0.42
2010							
Gillnet < 40	27	147.4	99.8	78.6	144.7	176.0	0.68
Gillnet >= 40	124	249.7	83.1	190.9	242.6	303.9	0.33
Longline < 40	63	809.9	423.7	451.3	842.5	1156.3	0.52
Longline >= 40	90	674.4	354.7	431.6	574.5	909.3	0.53
Trawl < 50	123	297.1	239.1	105.4	190.5	435.0	0.80
Trawl >= 50 and <= 65	218	861.7	604.0	460.7	767.2	1207.2	0.70
Trawl > 65	1123	1386.9	585.3	995.0	1311.2	1714.5	0.42

Table A6. Total Pounds Sold Through Auctions and Landed in Boston or New Bedford During FY2010 by Vessel Category

Gear/Size Category	Total Landed Pounds	Total Pounds Sold Through Auction	Total Pounds Landed in Boston or New Bedford	Proportion Subject to Auction Fee	Proportion Subject to Trucking Fee
			Fishing Year 2009		
Gillnet < 40 Ft	9,169,136	3,581,408	252,311	39%	97%
Gillnet >= 40 Ft	19,992,156	6,907,113	1,046,294	35%	95%
Longline < 40 Ft	679,346	438,356	34,000	65%	95%
Longline >= 40 Ft	1,384,293	2,385	295,394	0%	79%
Trawl < 50 Ft	9,675,385	2,514,914	184,057	26%	98%
Trawl >= 50 and <= 65 Ft	27,039,224	3,166,692	1,357,168	12%	95%
Trawl > 65 Ft	81,512,381	25,216,756	33,975,501	31%	58%
			Fishing Year 2010		
Gillnet < 40 Ft	6,060,580	1,341,240	261,495	22%	96%
Gillnet >= 40 Ft	14,021,447	4,049,060	936,807	29%	93%
Longline < 40 Ft	852,175	283,476	63,405	33%	93%
Longline >= 40 Ft	977,837	3,965	1,360	0%	100%
Trawl < 50 Ft	7,159,384	1,381,660	169,600	19%	98%
Trawl >= 50 and <= 65 Ft	26,026,031	1,192,113	3,159,269	5%	88%
Trawl > 65 Ft	84,796,909	27,736,068	33,437,907	33%	61%

Table A7. Estimated Sector Fees as a Share of Groundfish Revenue

Vessel Category	Average Total Groundfish Revenue on Groundfish Trips	Average Total Pounds Groundfish Landed	Sector Fees @ $0.04 per Pound	Sector Fees as a % of Groundfish Revenue
Gillnet < 40 Ft	$87,176	46,350	$1,854	2.1%
Gillnet >= 40 Ft	$141,216	95,840	$3,834	2.7%
Longline < 40 Ft	$102,768	51,838	$2,074	2.0%
Longline >= 40 Ft	$95,250	63,163	$2,527	2.7%
Trawl < 50 Ft	$68,693	34,709	$1,388	2.0%
Trawl >= 50 and <= 65 Ft	$159,090	105,676	$4,227	2.7%
Trawl > 65 Ft	$481,741	358,233	$14,329	3.0%

Table A8. Average Overhead Cost

Vessel Category	Sample Size	Mean	Standard Deviation	Median	Coefficient of Variation
				2009	
Gillnet < 40	15	55,174	29,224	49,697	0.53
Gillnet >= 40	37	80,316	45,793	71,762	0.57
Longline < 40	7	45,109	40,218	29,684	0.89
Longline >= 40	4	68,849	17,064	61,935	0.25
Trawl < 50	37	59,838	39,686	54,650	0.66
Trawl >= 50 and <= 65	30	137,722	146,829	85,804	1.07
Trawl > 65	63	220,493	133,320	161,503	0.60
				2010	
Gillnet < 40	15	56,051	29,697	50,512	0.53
Gillnet >= 40	37	81,609	46,518	72,940	0.57
Longline < 40	7	45,845	40,879	30,171	0.89
Longline >= 40	4	69,907	17,202	62,951	0.25
Trawl < 50	37	60,788	40,325	55,462	0.66
Trawl >= 50 and <= 65	30	139,952	149,240	87,177	1.07
Trawl > 65	63	223,941	135,515	163,661	0.61

Table A9. Summary of Total and Average Pounds of Allocated Groundfish Needed to Cover Initial ACE Overages for All Permitted Vessels in Break-Even Analysis

Stock	Gillnet < 40	Gillnet >= 40	Longline < 40	Longline >= 40	Trawl < 50	Trawl >=50 and <= 65	Trawl > 65	Total
Total Pounds Needed								
GB Cod	13,652	117,860	0	11,085	42,049	353,897	815,585	1,354,128
GOM Cod	420,627	585,827	108,273	7	237,926	508,002	313,171	2,173,833
GB Haddock	13	6,586	77,010	0	1,082	2,541	281,343	368,576
GOM Haddock	10,785	20,889	40,076	219	28,423	39,363	78,171	217,926
GB Winter	0	49	57	520	990	15,222	637,916	654,753
GOM Winter	2,827	17,722	3	0	24,283	46,990	4,996	96,821
Witch	2,056	3,466	0	0	62,905	104,176	192,553	365,157
CCGOM YT	31,202	73,051	1	0	121,821	117,992	70,382	414,450
GB YT	0	0	25	52	1,991	21,269	328,765	352,101
SNEMA YT	45	53	0	49	6,160	98,083	37,832	142,222
Plaice	2,885	871	51	17	32,313	137,944	357,977	532,058
White Hake	65,264	157,868	3,057	1,153	6,190	282,623	474,099	990,253
Redfish	1,031	10,927	916	0	295	160,005	182,651	355,825
Pollock	140,400	431,842	2	0	12,175	166,749	453,494	1,204,662
Total	690,787	1,427,010	229,471	13,102	578,605	2,054,855	4,228,933	9,222,763
Average Pounds Needed								
GB Cod	390	2,455	0	1,232	779	6,677	10,731	22,264
GOM Cod	12,746	12,205	13,534	1	4,489	9,407	4,121	56,503
GB Haddock	0	137	9,626	0	20	47	3,702	13,533
GOM Haddock	327	435	5,009	24	536	729	1,029	8,090
GB Winter	0	1	7	58	18	282	8,394	8,760
GOM Winter	86	369	0	0	458	870	66	1,849
Witch	62	72	0	0	1,187	1,966	2,534	5,821
CCGOM YT	946	1,522	0	0	2,299	2,185	926	7,877
GB YT	0	0	3	6	37	394	4,326	4,765
SNEMA YT	1	1	0	5	114	1,851	498	2,470
Plaice	85	18	6	2	610	2,555	4,710	7,986
White Hake	1,978	3,289	382	128	117	5,234	6,238	17,365
Redfish	29	228	115	0	5	2,963	2,403	5,743
Pollock	4,255	8,997	0	0	230	3,088	5,967	22,536
Total	20,905	29,729	28,684	1,456	10,899	38,247	55,644	185,564

Table A10. Percentage of Pounds Traded by Stock for Inter- and Intra-Sector Trades by Method of Compensation				
Stock	Fish for Fish Trade	Monetary Trade	No Compensation	Unknown Compensation
		Intra-Sector Trades		
GB Cod	28.23%	61.42%	0.86%	9.49%
GOM Cod	10.69%	66.78%	6.87%	15.65%
GB Haddock	1.61%	67.51%	0.01%	30.87%
GOM Haddock	14.20%	53.91%	5.29%	26.60%
GB Winter	3.01%	93.57%	0.03%	3.40%
GOM Winter	16.01%	69.42%	4.89%	9.67%
Witch	11.69%	46.57%	4.25%	37.49%
CCGOM Yellowtail	18.43%	66.38%	2.33%	12.85%
GB Yellowtail	21.55%	68.61%	0.06%	9.77%
SNEMA Yellowtail	26.02%	59.23%	0.25%	14.50%
Plaice	5.67%	45.69%	5.75%	42.90%
White Hake	13.11%	48.47%	10.35%	28.07%
Redfish	0.03%	49.36%	5.34%	45.27%
Pollock	2.88%	61.53%	11.98%	23.60%
Totals	6.73%	63.95%	3.40%	25.93%
		Inter-Sector Trades		
GB Cod	9.84%	84.45%	5.71%	0.00%
GOM Cod	17.32%	73.38%	9.30%	0.00%
GB Haddock	0.28%	77.54%	19.65%	2.53%
GOM Haddock	40.77%	54.30%	4.94%	0.00%
GB Winter	1.34%	87.42%	11.23%	0.00%
GOM Winter	2.40%	80.94%	16.66%	0.00%
Witch	27.33%	65.42%	7.21%	0.03%
CCGOM Yellowtail	13.88%	66.41%	18.15%	1.57%
GB Yellowtail	6.29%	82.31%	11.40%	0.00%
SNEMA Yellowtail	21.32%	74.53%	4.15%	0.00%
Plaice	14.05%	73.27%	12.62%	0.06%
White Hake	11.55%	83.68%	4.77%	0.00%
Redfish	0.03%	93.37%	5.17%	1.43%
Pollock	7.03%	88.26%	4.61%	0.10%
Totals	9.71%	80.64%	9.07%	0.59%

Table A11. Estimated FY2010 Sea Days on Groundfish Trips for Vessels Included in Break-Even Analysis

Vessel Category	Total Groundfish Day Trips	Total Groundfish Multi-Day Trips	Days Absent on Groundfish Multi-Day Trips	Average Trip Duration on Multi-Day Groundfish Trips	Total Estimated Sea Days
Gillnet < 40 Feet	1,973	77	131	2.0	2,127
Gillnet >= 40 Feet	3,031	322	1,017	4.0	4,319
Longline < 40 feet	143	46	68	2.0	235
Longline >= 40 Feet	64	86	143	2.0	236
Trawl < 50 Feet	1,037	171	374	3.0	1,550
Trawl >= 50 and <=65 Feet	924	425	1,518	4.0	2,624
Trawl > 65 Feet	320	1753	9,979	6.0	10,838
Totals	7,492	2,880	13,229	5.0	21,929

Appendix B. Ground-Truthing Results for Overhead Costs

Table B1. Gillnet Fixed Cost Estimates (Interview Results)	
Fixed Costs	Gillnet < 40 ft Range of Values
Improvements/Investments	0 – 15,000
Non-Crew labor services	0
Association fees	0 – 100
Hull/Vessel Insurance	2,500 – 8,000
Interest Payments on Business Loans	1,000 – 13,000
Mooring/Dockage fees	650 – 4,320
Permit/Licensing fees	500
Professional fees	800 – 4,700
Repair and Maintenance	9,212 – 10,000
Business Taxes	N/A
Business travel	N/A
Business vehicle	5,400 – 6,720
Communication (cell phone/VMS)	1,000 – 1,440
Haul Out Cost	1,137 – 3,000
Safety Equipment	0 – 3,200

Table B2. Trawl Fixed Cost Estimates (Interview Results)			
Fixed Costs	Trawl < 50 ft Range of Values USD, $	Trawl > 50 ft and < 75 ft Range of Values USD, $	Trawl > 75 ft Range of Values USD, $
Improvements/Investments	4,900 – 15,000	700 – 25,000	18,000 – 100,000
Non-Crew labor services	0	0 – 9,150	0 – 20,000
Association fees	0 – 300	0 – 3,000	0 – 2,400
Hull/Vessel Insurance	0 – 10,000	5,000 – 14,365	40,000 – 87,000
Interest Payments on Business Loans	0 – 790	2,500 – 14,760.35	0 - 124,176
Mooring/Dockage fees	2,000 – 13,500	1,000 – 7,000	1,500 – 17,000
Permit/Licensing fees	410 – 750	450 – 500	500 – 2,000
Professional fees	900 – 8,500	700 – 3,600	5,000 – 11,500
Repair and Maintenance	2,000 – 3,500	400 – 33,656	16,000 – 50,000
Business Taxes	0 – 7,500	344.13 – 12,753	500 – 1,100
Business travel	0 – 500	0 – 1,500	1,500 – 14,000
Business vehicle	3,600 – 4,000	0 – 7,800	0 – 4,000
Communication (cell phone/VMS)	1,400 – 1,750	1,964.83 – 4,241	1,500 – 6,000
Safety Equipment	600 – 3,600	336.45 – 1,800	500 - 2,000
Haul Out Cost	3,600 – 6,000	2,500 – 22,929	2,500 – 10,000

Table B3. Longline Fixed Cost Estimates (Interview Results)	
Fixed Costs	Longline Range of Values USD, $
Improvements/Investments	0 – 500
Non-Crew labor services	0
Association fees	250 - 940
Hull/Vessel Insurance	3,000 – 3,900
Interest Payments on Business Loans	0
Mooring/Dockage fees	450 – 1,370
Permit/Licensing fees	700 - 740
Professional fees	0 - 700
Repair and Maintenance	500 – 8,250
Business Taxes	0 - 410
Business travel	0 - 200
Business vehicle	1,800 – 3,800
Communication (cell phone/VMS)	1,470 – 1,700
Safety Equipment	1,000 – 1,420
Haul Out Cost	1,274 – 3,000

Appendix C. Glossary of Terms

Acceptable Biological Catch (ABC): a level of a stock or stock complex's annual catch that accounts for the scientific uncertainty in the estimate of OFL and should be specified based on the ABC control rule.

Accountability Measures (AMs): management controls that prevent ACLs or sector ACLs from being exceeded (in-season AMs), where possible, and correct or mitigate overages if the occur.

Annual Catch Limit (ACL): the level of annual catch of a stock or stock complex that serves as the basis for invoking accountability measures.

Annual Catch Target (ACT): an amount of annual catch of a stock or stock complex that is the management target of the fishery. A stock or stock complex's ACT should usually be less than its ACL and results from the application of the ACT control rule. If sector ACL's have been established each one should have a sector ACT.

Fishing Year (FY): in the multispecies fishery the fishing year starts on May 1st and ends April 31st.

Optimum Yield (OY): The term "optimum", with respect to the yield from a fishery, means the amount of fish which -

(A) will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities, and taking into account the protection of marine ecosystems;

(B) is prescribed as such on the basis of the maximum sustainable yield from the fishery, as reduced by any relevant economic, social, or ecological factor; and

(C) in the case of an overfished fishery, provides for rebuilding to a level consistent with producing the maximum sustainable yield in such fishery.

"Overfishing" and "Overfished": a rate or level of fishing mortality that jeopardizes the capacity of a fishery to produce the maximum sustainable yield on a continuing basis.

Overfishing Limit (OFL): the annual amount of catch that corresponds to the estimate of MFMT applied to a stock or stock complex's abundance and is expressed in terms of numbers of weight of fish.

JOHN H. LYNCH
Governor

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January 13, 2012

The Honorable John Bryson
Secretary
United States Department of Commerce
1401 Constitution Avenue, NW
Washington, DC 20230

Dear Secretary Bryson:

The State of New Hampshire is formally requesting disaster assistance for the Northeast Multispecies Fishery in New Hampshire under Section 312(a) of the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C § 1861). Recent regulatory decisions have resulted in substantial economic hardship for the New Hampshire commercial fishing industry. The catch-share program and allocation system implemented in Amendment 16 to the Multispecies Fishery Management Plan has caused a dramatic decrease in allocation and harvest of groundfish for members of New Hampshire's fishing community. It has jeopardized their ability to operate their businesses and earn a living, and has endangered the shore-side infrastructure they rely on to conduct business. Additionally, a recently released Department of Commerce report[1] makes clear that New Hampshire's fishing industry has borne a proportionally larger burden of the impacts of Amendment 16. The report demonstrates that there is a commercial fishery failure due to a fishery resource disaster in New Hampshire. The report further shows that fisheries managers have been unable to mitigate the effects on New Hampshire through regulatory controls. Consequently, I firmly believe that the standard under section 312(a)(1)(B) of the Act for a disaster relief determination is met and the Secretary should make funds available to New Hampshire's fishing industry and community,

This report evaluates the performance of the Northeast Multispecies Fishery using data from the National Oceanic and Atmospheric Administration (Performance Report), and demonstrates how dramatically the New Hampshire fishing industry has been affected by recent management changes. The nominal value of landings of groundfish by New Hampshire-based vessels has diminished from $7,222,173 in 2008 and $6,067,623 in 2009 to $3,692,642 in 2010[2]. This 39 percent decline in one year puts enormous strain not only on the New Hampshire groundfish fishing industry, but on related businesses and on-shore infrastructure as well.

[1] Kitts A, Bing-Sawyer E, Walden J, Demarest C, McPherson M, Christman P, Steinback S, Olson J, Clay P. 2011. 2010 Final Report on the Performance of the Northeast Multispecies (Groundfish) Fishery (May 2010 – April 2011). US Dept Commer, Northeast Fish Sci Cent Ref Doc. 11-19; 97 p.
[2] Table 7 of 2010 Final Report on the Performance of the Northeast Multispecies (Groundfish) Fishery (May 2010-April 2011).

The owner's share of landings by New Hampshire-based vessels also declined from $3,793,838 in 2009 to $2,781,245 in 2010[3]; a decline of 26.7 percent following the conversion of regulations from days-at-sea management to catch share programs. The number of vessels generating revenue from groundfish harvest declined from 43 in 2009 to 32 in 2010[4]. This decline in the size of New Hampshire's fishing fleet resulted in a decline in employment in the fishing industry, as both total crew positions and total crew trips declined from 2009 to 2010[5].

Additionally, critical infrastructure support services, such as shore-based facilities, have been significantly affected by the decline in groundfish harvest that followed the change in management under Amendment 16. An example is the Yankee Fishermen's Cooperative, which is New Hampshire's only resident dockside support that meets the needs of the New Hampshire fishing community. The Yankee Fishermen's Cooperative experienced a 55 percent reduction in groundfish product between 2009 and 2010 (Figure 1). This mirrors the statewide reduction in groundfish landings and is further evidence of the economic hardship and declining trend the New Hampshire commercial fishing industry is experiencing.

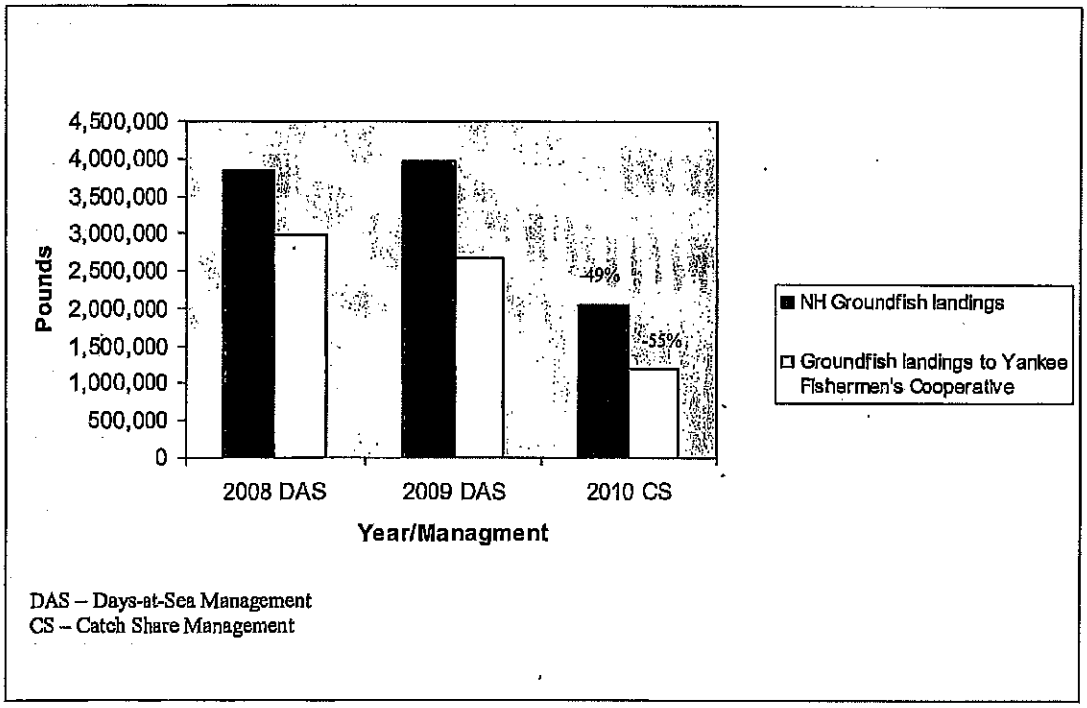


Figure 1. New Hampshire Groundfish Landings, 2008-2010 Fishing Years.

[3] Table 19 of 2010 Final Report on the Performance of the Northeast Multispecies (Groundfish) Fishery (May 2010-April 2011).
[4] Table 32 of 2010 Final Report on the Performance of the Northeast Multispecies (Groundfish) Fishery (May 2010-April 2011).
[5] Table 44 of 2010 Final Report on the Performance of the Northeast Multispecies (Groundfish) Fishery (May 2010-April 2011).

New Hampshire was the only state from Maine to New Jersey that showed a decrease in the nominal value of landings of all species as well as the aggregate owners' shares between 2009 and 2010[6] following the implementation of Amendment 16. This clearly demonstrates that the mitigation of the impacts on New Hampshire by the provisions of Amendment 16 has not been successful and as a result, we are experiencing a fishery resource disaster caused by the Amendment 16 regulatory measures. In addition, this is further evidence that the small vessel commercial fishing community in New Hampshire, which has limited range, continues to suffer gravely compared to other states under the current management structure for groundfish. The economic pressure and insecurity that results from this management system which management measures are not able to mitigate and control threatens this traditional fishery and community, which has been in existence for centuries, with extinction.

All of this evidence supports the conclusion that New Hampshire's fishing industry suffers severe adverse impacts by recent regulatory decisions. While fishermen in other states are seeing revenues remain steady or even increase, the New Hampshire fishing community is losing revenue, and as a result, vessels are going out of business, jobs are disappearing, and infrastructure is being compromised. I ask that you take steps to more fully assess the situation and declare a fisheries disaster under the Magnuson-Stevens Act.

The New Hampshire Fish and Game Department, Marine Fisheries Division, is ready and able to assist you if you need specific information about the fishing industry in our state. Please feel free to contact Douglas Grout, Chief of Marine Fisheries, at (603) 868-1095 or douglas.grout@wildlife.nh.gov if you need any information from the Department. If there is anything I can do to be helpful in this process, please do not hesitate to contact me.

Sincerely,

John H. Lynch
Governor

cc: Jane Lubchenco, Administrator, National Oceanic and Atmospheric Administration
Eric Schwaab, Assistant Administrator, National Marine Fisheries Service
Patricia Kurkul, Northeast Regional Administrator, National Marine Fisheries Service
Senator Jeanne Shaheen
Senator Kelly Ayotte
Representative Frank Guinta

[6] Tables 4, 5, and 19 of 2010 Final Report on the Performance of the Northeast Multispecies (Groundfish) Fishery (May 2010-April 2011).

STATE OF MAINE
OFFICE OF THE GOVERNOR
1 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0001

Paul R. LePage
GOVERNOR

November 21, 2011

The Honorable John Bryson, Secretary
U.S. Department of Commerce
1401 Constitution Ave., NW
Washington, D.C. 20230

Dear Secretary Bryson:

The State of Maine formally requests that you declare the Northeast multispecies fishery a failure under section 312 (a) of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA). Our request is in part prompted by the recent release of NOAA's FY2010 Groundfish Performance Report[1] which documents significant impacts on Maine's groundfish fleet and the industry as a whole.

Maine applied for a disaster declaration in September 2008, but received a response from NOAA Fisheries in May 2011 that in their estimation, a fisheries disaster had not occurred. Unfortunately, the analyses that appear to form the basis of these decisions at the federal level fail to consider the severe cumulative impacts of multiple Amendments and Framework Adjustments that have eliminated the vast majority of vessels active in Maine's groundfish fishery. In 2008 there were roughly 70 vessels compared to 350 vessels prior to the first buyback program. Since 2007 there has been another drastic reduction (nearly 50%) in the number of Maine vessels with revenue from at least one groundfish trip representing a large loss of fleet diversity in Maine:

"Between 2007 and 2010, the total number of vessels in New England with revenue from at least one groundfish trip declined by 32% (658 to 450 vessels – decline of 47 between 2007 and 2008, 45 between 2008 and 2009, and 116 between 2009 and 2010.) **By home port state, the largest percentage declines from 2007 to 2010 occurred in New Jersey (51%: 41 to 20 vessels) and in Maine (46%: 78 to 42 vessels). Between 2009 and 2010, the largest percentage reduction in number of vessels with revenue from at least one groundfish trip, by home port state, occurred in Maine (33%: 63 to 42 vessels)" (P22; Table 32).**"

Groundfish landings in the top ten landings ports in Maine have steadily declined since 1982, decreasing from a high of 27,444,733 live pounds in the 1992 to an all time low of 3,178,345 live pounds in 2010, **representing an 88% loss** (Table 1, DMR Landings Data).

[1] Kitts A, Bing-Sawyer E, Walden J, Demarest C, McPherson M, Christman P, Steinback S, Olson J, Clay P. 2011. 2010 Final Report on the Performance of the Northeast Multispecies (Groundfish) Fishery (May 2010 – April 2011). US Dept Commer, Northeast Fish Sci Cent Ref Doc. 11-19; 97 p

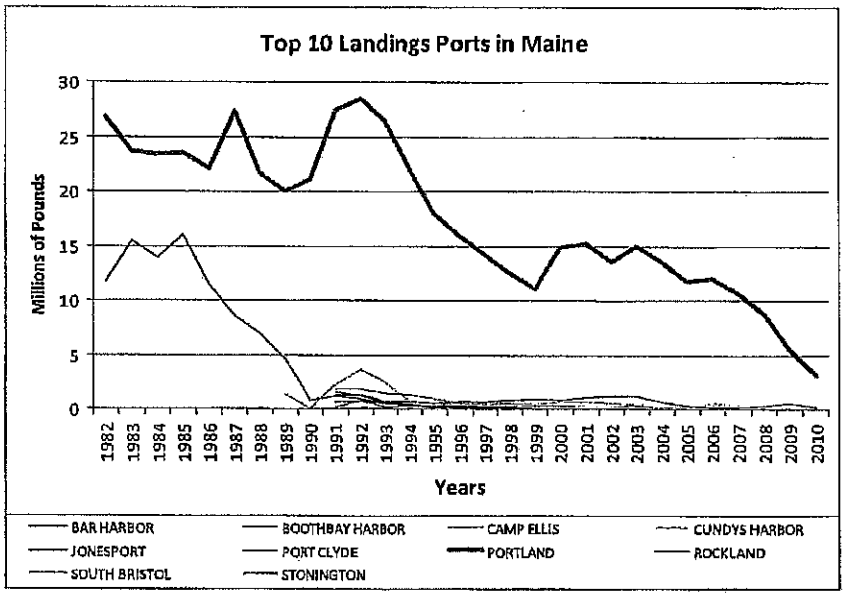


Table 1. Steadily declining groundfish landings by Maine port, with Portland highlighted in red.

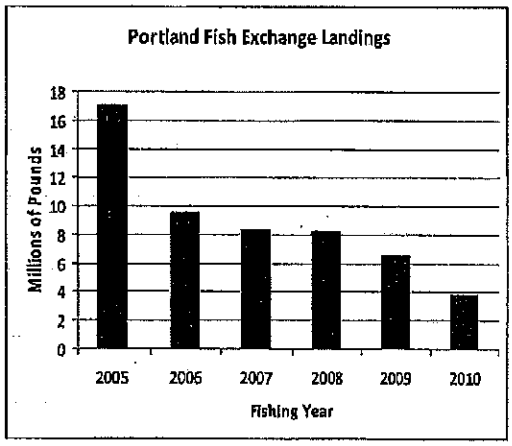


Table 2. Landings at the PFE since 2005,

The Portland Fish Exchange (PFE), Maine's only fish auction, averaged approximately 20M lbs. of landings per year since its inception in 1986. In 2005, following the implementation of Amendment 13, landings began to precipitously fall off as the number of days-at-sea each permitted vessel was allocated was slashed along with deceases in trip limits. These reductions forced many of Maine's traditional off-shore draggers to relocate closer to the fishing grounds in Massachusetts. As a result, the PFE experienced a net loss in landings of 13.2M lbs **(78% reduction; Table 2)**, an overall decline in revenues of $2.3M dollars **(76% reduction)**, net operating losses totaling more than $544,000, and a reduction in staffing by 28 individuals between 2005 and 2010. These results are mirrored in the recent FY2010 Groundfish Performance Report[2] which states that the nominal value of landing for all species in Portland had declined from $12,590,656 in 2008 to $6,956,041 in 2010 – **a 55% reduction**, while groundfish landings had steadily declined from

[2] Kitts A, Bing-Sawyer E, Walden J, Demarest C, McPherson M, Christman P, Steinback S, Olson J, Clay P. 2011. 2010 Final Report on the Performance of the Northeast Multispecies (Groundfish) Fishery (May 2010 – April 2011). US Dept Commer, Northeast Fish Sci Cent Ref Doc. 11-19; 97 p

$10,194,963 in 2008 to an all time low of $3,853,628 in 2010 – **representing a decline of 62%.**" (P6-7; Table 4 & 6).

The losses the PFE has experienced are significant and are all a direct result of the recent and compounding Amendments and Framework Adjustments to the federal management system. Due to this economic hardship, capital improvements have been held-off, with PFE Infrastructure & equipment being mostly outdated and lacking needed repairs. The recent generous financial support of the City of Portland has allowed the PFE to keeps its doors open; however, this support is a short-term fix and the PFE cannot continue to operate in the current regulatory environment.

At this time we are also hearing the first news of sudden and previously unexpected concerns about the status of the Gulf of Maine (GOM) cod stock. While the stock assessment results will not be available until after the SARC review meeting takes place (Nov 28 - Dec 2), it is anticipated that there will be a substantial decrease in the amount of GOM cod each fisherman will be allocated for FY2012. With GOM cod being the primary targeted species for Maine fishermen, this decrease in allocation will further contribute to the instability the groundfish industry is currently facing during the transition to the new catch shares management system.

Once again, the State of Maine is requesting your assistance to help preserve our cultural and historic participation in the groundfish fishery, while we adhere to the decreased fishing rates that are necessary to rebuild the multispecies stock back to sustainable levels. It would be a serious injustice to our maritime heritage if only a few fishermen, primarily from outside of Maine, were able to maintain future access to this marine based livelihood.

The Maine Department of Marine Resources is committed to working cooperatively with your department on this matter and is ready to assist your staff with the evaluation of this request. Please let us know what additional information you may require. Acting Commissioner Patrick Keliher can be reached at 207-624-6553 or by email at Patrick.Keliher@maine.gov.

Sincerely,

Paul R. LePage
Governor

cc: Senator Olympia Snowe
Senator Susan Collins
Congressman Mike Michaud
Congresswoman Chellie Pingree

Commonwealth of Massachusetts
Division of Marine Fisheries
251 Causeway Street, Suite 400
Boston, Massachusetts 02114
(617)626-1520
fax (617)626-1509

Paul J. Diodati
Director

Deval Patrick
Governor
Richard K. Sullivan, Jr.
Secretary
Mary B. Griffin
Commissioner

July 12, 2012

C.M. "Rip" Cunningham, Jr., Chairman
New England Fishery Management Council
50 Water St.
Newburyport, MA 01950

Dear Rip:

The Council has "formally requested" states to cooperate *"on coordinating management of fisheries that are managed by the Council that also operate in state waters."* On the Council's behalf you have highlighted concerns about how catches of groundfish stocks in state-water fisheries impact the federal fishery and that it's *"especially important that the Council, states, and ASMFC work collaboratively in order to foster the success of participants in all our historic fisheries."* You reiterate sector vessels' concerns about low catch limits and the *"economic strain on participants in the federal groundfish fishery."* Being a Council member I truly appreciate your request, and, in turn, I ask the Council to reciprocate by cooperating with states, e.g., to understand and give greater weight to states' objectives for management of fisheries (groundfish and non-groundfish) in waters under our jurisdiction.

I agree that cooperation and collaboration are very important and that states and the Council must work together with a clearly defined and improved relationship in anticipation of May 1, 2013 with all that date portends. This will be important as we prepare for a groundfish fishery failure that will occur at the beginning of the next fishing year, if not sooner, especially for many permit holders who already have succumbed to low ACLs and low allocations forcing them to leave the fishery by leasing away all or a portion of their allocations and/or moving into other fisheries, or selling their permits. We all face a remarkable and testing management/regulatory challenge that many fear will not be met.

I begin by reminding the Council – of which DMF certainly is a part (not apart) – that DMF never objected to the recent reduction in the State Waters ACL sub-component for Gulf of Maine (GOM) cod. Without notice or consultation NMFS shifted tonnage from the State Waters category to increase the commercial fishery ACL for federal permit holders to 6,700 mt for this fishing year. The State Waters sub-component thereby decreased from an expected 598 mt for FY 2012 to 253 mt (58% decrease).

Without this shift of quota, overfishing by federal permit holders would have continued, and NMFS would not have been able to justify the 6,700 mt that included sectors' "critical" 10% 2011 ACE carryovers.

I expect many other groundfish stocks' State Waters ACL sub-components will be reduced without regard for the impacts of those reductions on state waters' fisheries management and on non-federal permit holders fishing in waters under the jurisdiction of the Commonwealth already subject to many DMF regulations supportive of Council past decisions. Those impacts should be assessed beforehand; otherwise, requesting DMF to further restrict non-federal permit holders to stay within the multi-state sub-ACLs that for the most part are artificial and guesswork, avoids the question of how catches of groundfish stocks in federal-water fisheries impact states' fisheries. And, just as important, how do federal fisheries for groundfish – also including fishing by federal permit holders in state waters – affect stocks' abundance, state management policies/approaches, and availability of those stocks to non-federal permit holders?

As an example of the degree to which DMF is concerned about unrestrained fishing (e.g., no trip or possession limits) by federal permit holders in state waters (and nearby federal waters), I call your attention to DMF's current rolling closures. The Council with NMFS' concurrence removed many rolling closures for groundfish sector fishermen (e.g., May and November closures in areas 124 and 125 and the June closure in areas 132 and 133). The Commonwealth retained those closures in waters under our jurisdiction affecting sector and common pool fishermen as well as non-federal permit holders who unsuccessfully argued that DMF should give them sector-like access. Assuming ACEs would hold fishermen in check and keep mortality to yearly targets, the Council opened areas, but with no regard to effects of poorly monitored fishing in those areas on seasonal aggregations of groundfish, especially pre-spawning and spawning cod.

I continue to appreciate sector fishermen's wish for flexibility and freedom, but that wish should not be a carte blanche opportunity to do as sectors please – subject to ACE restrictions, albeit not so restrictive for many fishermen when quota leasing occurs. DMF's concern about NMFS and Council laissez-faire sector management was expressed in our June 4 letter to then Acting Administrator Daniel Morris. We noted NMFS good use of DMF-published research as a basis for denying sector-requested exemptions to some seasonal rolling closure areas to address disruption of spawning aggregations "causing impacts to the stock beyond the mortality of the individual fish caught." However, NMFS decided not to take a more comprehensive and timely consideration of GOM cod rebuilding through interim action despite the foreboding May 1, 2013 cod quota likely to be so low as to force a by-catch only "fishery."

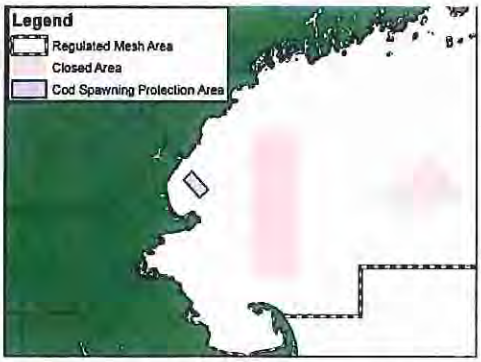
Moreover, the Council and NMFS continue to give little attention to the observed and likely shift of offshore effort to inshore areas and, more insidiously, to possible false reporting of offshore catch as inshore (and vice versa). These real and/or potential practices place a heavy and unfair burden on states seeking to complement and cooperate, but having little to no NMFS and Council meaningful response to pressures brought to bear on inshore groundfish stocks or on other inshore and state waters' fisheries for non-groundfish stocks managed through ASMFC or by individual states alone.

DMF identified most of these concerns, and others, in our February 29 letter to Sam Rausch when he served as the Acting Assistant Administrator for Fisheries and to Susan Murphy in our April 12 letter requesting NMFS to "increase NMFS and Council

understanding of sectors' structure, operation, and evolution relative to: (1) the distributive effects of sector ACE leasing and fishing behavior; (2) shifts of effort to non-groundfish fisheries; (3) shifts of offshore vessel effort to inshore fishing grounds such as Stellwagen Bank; and (4) improving the quality and accuracy of stock assessments." Consider that we received a NMFS response basically suggesting DMF use NMFS data to improve that understanding on our own.

I would have welcomed a formal Council request for our cooperation accompanied by a Council commitment to provide in a very timely way the above understanding. Otherwise, as it stands, the Council with all its state partners will continue to see through a glass darkly.

It is difficult to continue to cooperate with the same level of commitment DMF has demonstrated for many years when we're still uncertain as to what the Council is trying to accomplish and by when. For example, putting Amendment 18 on the back-burner clearly indicates that issues critical to the Commonwealth (e.g., excessive shares and consolidation) will go unaddressed by the Council and NMFS for many years to come. We will continue to encourage the Council to light the burner and turn up the flame.



The other critical issue – not to be addressed by the Council but to be left up to sector fishermen – is protection of cod pre-spawning/spawning aggregations. A much more aggressive and responsive Council stance on this issue would send a signal to DMF that our self-imposed restrictions on non-federal permit holders and federally permitted fishermen fishing in our waters (especially for cod) will not be undercut and subverted by Council inaction in nearby federal waters. Currently, the only step taken by the Council (initiated by DMF) was the April-June Whaleback closure.

I anticipate that the report of the June 12-14 GMRI Workshop on Cod Stock Structure in the Gulf of Maine will spur the Council to quickly address its findings and recommendations such as: (1) there are three genetic stocks delineated as an inshore southern/winter-spawning complex, an inshore northern/spring-spawning complex, and an offshore/eastern Georges Bank (some connectivity with Scotian Shelf); (2) cod in the eastern Gulf of Maine appear to be distinct from other groups; and (3) depletion of historical spawning groups is most apparent in the eastern Gulf of Maine, the Mid-Atlantic, the "Plymouth Grounds," and recently Nantucket Shoals. Failing to use this information as a justification for more protection of these genetically distinct stocks with multi-year fidelity to local spawning sites will seriously set back the Council's efforts to rebuild GOM cod for the betterment of cod commercial and recreational fisheries in state and federal waters.

I end by reminding you that DMF "shares" the State Waters ACL subcomponents with other states. At this time, only winter flounder is jointly managed through an ASMFC plan; therefore, states have been able to work together to support the Council and to provide for sustainable fisheries in our waters responsive to federal ACLs, and prior to ACLs, target TACs. For example, DMF recently requested the Winter Flounder

Management Board to address the increased State Waters ACL subcomponent for GOM winter flounder by reconsidering the ASMFC commercial and recreational requirements established in 2009.

This DMF request indicates we respect the State Waters ACL subcomponents and react accordingly. However, unlike the Council with its large supporting indirect and direct staff [including DMF staff devoting incalculable hours to assist the Council] enabling it to deal with numerous complicated and intertwined management issues, DMF and every other state, is hard-pressed to respond in a timely and scrupulous way especially to marked and unexpected decreases in ACLs. Nevertheless, we'll continue to give it our best effort, and we ask the Council to do the same when addressing our concerns about Council progress and decisions.

DMF values our role and participation on the Council. Be assured our cooperation will continue, perhaps begrudgingly at times, but that all depends on how the Council reciprocates.

Sincerely,

David E. Pierce, Ph.D.

cc
Paul Diodati
Daniel McKiernan
Melanie Griffin
Nichola Meserve
Steve Correia
Mass. Marine Fisheries Advisory Commission
Robert Beal
Paul Howard
Terry Stockwell
Douglas Grout
Mark Gibson
Mark Alexander
Daniel Morris

Congress of the United States
Washington, DC 20510

August 5, 2012

The Honorable Rebecca Blank
Acting Secretary
Department of Commerce
1401 Constitution Avenue N.W.
Room 5858
Washington, D.C. 20230

Dear Acting Secretary Blank:

We are extremely concerned about a recent National Marine Fisheries Service report which included troubling information regarding potential declines in groundfish stocks in both Georges Bank and the Gulf of Maine.

Those numbers suggest the possibility of further difficulties for fishermen and fishing communities in Massachusetts, specifically the small boat fishermen who can least bear the burden of additional declines in available fish. It is our understanding that these declines are not related to overfishing and not due to the actions of our fishermen. We must take immediate action to provide relief to fishing communities and to improve fisheries science so that there will be fish to catch in the future.

In response to this information, we again ask that the federal government take immediate and decisive action to provide a disaster declaration for New England fishermen and fishing communities. For the past two years, the New England Congressional delegation and New England Governors have pushed the federal government to issue a disaster declaration. We believe the evidence is now overwhelming in favor of such a declaration.

We also request that the federal government provide emergency disaster assistance to our fishermen and fishing communities to assist them in dealing with any future declines in fishing related to the new information provided by NMFS.

We have also asked for a meeting in Massachusetts with Acting Assistant Administrator Sam Rauch and stakeholders to review the current science, fishing allocation process and to determine the options available for our fishermen and our fishing communities.

Thank you in advance for your consideration of our requests.

Sincerely,

John F. Kerry
United States Senator

Scott P. Brown
United States Senator

c: Council, CBK, PMF, TN FH (8/7)

Barney Frank
Member of Congress

John F. Tierney
Member of Congress

William R. Keating
Member of Congress

(3)

New England Fishery Management Council
50 WATER STREET | NEWBURYPORT, MASSACHUSETTS 01950 | PHONE 978 465 0492 | FAX 978 465 3116
C. M. "Rip" Cunningham, Jr., *Chairman* | Paul J. Howard, *Executive Director*

August 6, 2012

The Honorable Rebecca Blank
Acting Secretary of Commerce
1401 Constitution Ave, N.W.
Herbert C. Hoover Building, Room 5838
Washington, DC 20230

Dear Acting Secretary Blank:

I am writing on behalf of the New England Fishery Management Council to inform you of the serious economic conditions threatening the New England groundfish industry. Significant losses of fisheries income, jobs and related business failures are already occurring and will continue into 2013 and beyond if we are to continue to rebuild and maintain this fishery. These conditions have been the result of unanticipated changes to earlier scientific advice provided to the Council and have triggered significant catch reductions in order to meet Magnuson-Stevens Act requirements.

As a result of an assessment of the Gulf of Maine cod stock, completed in December 2011, NOAA/ National Marine Fisheries Service, in consultation with the New England Council, reduced the allowable catch of Gulf of Maine cod to 6,700 metric tons for fishing year 2012. This is a 39% reduction from the 2010 catch of 11,000 metric tons. Based on current information, the 2013 catch will have to be lowered further to a range between 1,500 and 5,000 metric tons. This circumstance will be devastating to the fishing communities that are already struggling.

Additionally, an updated assessment for Gulf of Maine haddock, another key stock for both the commercial and recreational fishery, revealed that overfishing is occurring even though recent catches have been below their respective quotas. Accordingly, the Council will have to reduce the Gulf of Maine haddock catch limit by about 70% to end overfishing in 2013.

An updated assessment of Georges Bank cod will also lead to reduced quotas in fishing year 2013. Catch projections from this assessment under two rebuilding strategies show reductions in 2013 catch compared to 2011 ranging from about 10 to 41%[i]. Further, advice from the U.S./Canada Transboundary Resource Assessment Committee stock assessment of Georges Bank yellowtail flounder convened recently points toward a 55% allowable catch reduction from 1,150 metric tons in 2012 to only 500 metric tons in 2013.

NMFS has provided the Council and the public with the following preliminary estimates of reductions in the annual catch limits (ACLs):

Stock/Species	Change: FY2012 to FY2013 ACLs	Change: FY*2011* commercial catch to FY2013 ACL
Georges Bank cod	-70	-57
Gulf of Maine cod	-72	-76
Gulf of Maine haddock	-73	-64
Georges Bank yellowtail flounder	-51	-94
Cape Cod/Gulf of Maine yellowtail flounder	-45	-28
American Plaice	-69	-39

To provide a concrete example of potential impacts of catch limit reductions, from 2007 to 2010, when groundfish landings decreased 21%, inflation-adjusted groundfish revenues decreased 10%, the number of crew positions dropped 15% and the number of vessels landing any groundfish decreased 32%[ii].

In 2010, 450 commercial vessels landed fish with a dockside value of $105 million while on trips landing groundfish. These vessels provided 2,277 crew positions, and their operations supported substantial shore-side employment and economic activity in both large and small coastal communities. An analysis referenced in the attached letter from the Commonwealth of Massachusetts estimated that only about 55% of vessels exceeded their financial break-even point (not including capital costs) on their groundfish trips in 2010.

In other words, a substantial reduction in the landings of key groundfish stocks will have a major impact on revenues, vessels, employment and economic activity in fishing communities that is largely proportional to the decrease in landings. Sudden reductions in landings of several key stocks of over 50% would almost surely result in many business failures and the loss of hundreds of jobs in an industry that has already been weakened by mandated reductions in groundfish catch limits

Additional dimensions to this problem include the following:

- When the annual catch limit for a single stock such as cod, haddock, yellowtail flounder or most other groundfish stocks is reached, fishing for all other stocks in the area must end.
- The cost of leasing quota for stocks that are in short supply will be extremely high and might be beyond the reach of many small-boat owners.
- Segments of the groundfish industry, particularly boats that fish inshore, also will be subject to restrictions that protect marine mammals and Endangered Species Act-listed species. Most notable in the near term are the pending Atlantic sturgeon and current harbor porpoise conservation programs, both of which will impose area-based closures, gear restrictions or other measures that directly limit the operations of groundfish fishermen. These measures, particularly closures of large areas to fishing, whether due to lack of quota or to protect non-target species, frequently cause effort displacement, increasing pressure on all species and habitat, and concentrating competing fishing operations in smaller, and often less-productive open areas.
- The cost of fuel which is a very high percentage of fishing trip costs, ranging from 43% to 59%, is expected to remain near inflation-adjusted 15-year highs.

- In smaller communities where much fishing is based, there are fewer alternatives for employment and resources to lessen economic hardship. Impacts on small boats in the Gulf of Maine will be magnified because they depend so heavily on cod for a major share of their income and it is not feasible for them to fish offshore. Also smaller, inshore commercial operations have very limited access to capital to lease quota or relocate their operations.
- The allocation of Georges Bank yellowtail flounder between the groundfish and scallop fleets is already the subject of controversy and Secretarial intervention, because it is a major constraint on the catch of scallops and other groundfish.
- Although Georges Bank haddock are abundant, the low catch limits for cod, yellowtail and windowpane will limit the amount of haddock that U.S. vessels will be able to catch in 2013. These pressures on large groundfish boats fishing on Georges Bank could cause them to compete for quota in other areas, including Southern New England and in the Gulf of Maine, which will increase the price of quota available to inshore vessels.
- Gulf of Maine party and charter boats also depend very heavily on cod, haddock and pollock for almost all of their catch. Based on information included in Northeast Multispecies Amendment 16, most groundfish party and charter boat fishing trips (85% in 2007) took place in the Gulf of Maine. At that time 153 boats carried 59,865 people on 2,838 trips in the Gulf of Maine on which groundfish were caught. The large reductions in the cod catch limit as well as a reduction in the Gulf of Maine haddock catch limit will have a devastating impact on this important component of the fishing-related economy in New England.
- Even low catch limits for the commercially unimportant stock of windowpane flounder will continue to constrain the groundfish and possibly the scallop fishery on Georges Bank in 2013 and beyond.

Finally, greatly reduced fishing opportunities in 2013 will follow several years of reduced catch levels and loss of employment in the groundfish industry that are documented in the attached letters to former Secretary Bryson from the Governors of Maine, Massachusetts and New Hampshire. Further reductions in landings of the key stocks of cod, haddock and yellowtail flounder will likely cause many marginal fishing operations to fail financially. Until now, these operations have provided coastal communities with a buffer to job losses resulting from the recent recession.

In closing, I ask that you consider the Magnuson-Stevens Act, Section 312(a) that provides for Fisheries Disaster Relief and authorizes funds to mitigate negative outcomes such as those I have described above.

The imminent commercial fishery failure is due to two of the three statutory criteria needed to justify this finding. The conditions we are facing are due to unknown causes; the Council and the industry have reacted appropriately to the need to rebuild fishery stocks, yet our best efforts are not achieving the anticipated results. They are also in part the result of man-made causes beyond the ability of the Council to address through conservation and management measures because the current legal and policy framework does not provide the flexibility needed to adapt to the revised perception of stock status.

The Council and the user groups with whom it collaborates are extremely concerned about what promises to be a very dire future for the fishing industry despite our combined efforts to respond appropriately to rebuild groundfish stocks.

We hope you find this letter useful as you deliberate on a response. Meanwhile, should you have any questions about the information I have provided, please do not hesitate to contact me.

Sincerely,

C.M "Rip" Cunningham, Jr.
Chairman

attachments

[i] Northeast Fisheries Science Center. 2012. Assessment or Data Updates of 13 Northeast Groundfish Stocks through 2010. US Dept. Commerce, Northeast Fish. Sci. Center Ref. Doc. 12-06; 789 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026, or online at http://www.nefsc.noaa.gov/nefsc/publications/

[ii] Kitts A, Bing-Sawyer E, Walden J, Demarest C, McPherson M, Christman P, Steinback S, Olson J, Clay P. 2011. 2010 Final Report on the Performance of the Northeast Multispecies (Groundfish) Fishery (May 2010 – April 2011). US Dept Commer, Northeast Fish Sci Cent Ref Doc. 11-19; 97 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026, or online at http://www.nefsc.noaa.gov/nefsc/publications/

Break-Even Analysis of the New England Groundfish Fishery for FY2009 and FY2010

November 14, 2011

Daniel Georgianna
School for Marine Science and Technology,
University of Massachusetts Dartmouth

Eric Thunberg
Office of Science and Technology,
Economics and Social Analysis Division
NOAA Fisheries

Emily Keiley
School for Marine Science and Technology,
University of Massachusetts Dartmouth

Brant McAfee
Division of Marine Fisheries,
Department of Fish and Game,
Commonwealth of Massachusetts

Story Reed
Division of Marine Fisheries,
Department of Fish and Game,
Commonwealth of Massachusetts

(3)

Karen Roy

From: Marc S. <ijigcod@mindspring.com>
Sent: Wednesday, August 15, 2012 10:14 PM
To: Dan Morris; Paul Howard; Rip Cunningham
Cc: Tom Nies; paul hoffman; Hilary; Doug Amorello; Ed Snell; Anthony Gross; Tracy937 @verizon.net; Doug Grout; David Pierce; Forbes Darby; George.lapointe@maine.gov; Karen Roy; Marie.H.Marks@noaa.gov; George Darcy; Pat Fiorelli; Paul Rago; Paul Diodati; Peter Baker; Terry Stockwell
Subject: White Hake Common Pool Hook Gear Exemption
Attachments: CP_white_hake_by_gear_Brett.xlsx

Dear Mr. Morris, Rip and Paul,

I am asking you to please take immediate action (by what ever regulatory power you have) to remove hook gear (longline and handgear) from the list of gear that catches any significant quantities of White Hake for the common pool with regard to any shutdowns of the fishery (current and future).

Per the first trimester this year the catch was only 126 lbs for handgear vessels and 500 lbs for longline vessels. For the common pool this represents less than 3% of the sub ACL for white hake in the common pool.

To put in into perspective how deminimus the catch is, the combined common pool and sector white hake ACL is 7,202,429 lbs. So far the combined handgear/longline catch is 0.00869% for the 2012 fishing year.

It is not fair or equitable for handgear and longline fishermen to be closed (16 USC § 1851) when the catch of white hake is so small and insignificant.

Sincerely
Marc Stettner
NEHFA

White Hake Trimester Area Closed for Remainder of Trimester 1

Effective Date: 0001 hours, August 15, 2012, through 2400 hours, August 31, 2012

Based on available data, we have determined that 90 percent of the Trimester 1 TAC for white hake has been harvested. Therefore, effective 0001 hours, August 15, 2012, the White Hake Trimester TAC Area is closed for the remainder of Trimester 1, through August 31, 2012, to all common pool vessels fishing with trawl gear, sink gillnet gear, and longline/hook gear. The White Hake Trimester TAC Area encompasses the following statistical areas: 513, 514, 515, 521, and 522 (Figure 1) and will reopen at the beginning of Trimester 2, at 0001 hours, September 1, 2012.

----- Original Message -----
From: Brett Alger
To: Marc
Cc: Daniel Caless ; J.Michael Lanning ; Sarah Heil
Sent: Tuesday, August 14, 2012 11:53 AM
Subject: Re: Info request

Marc

Attached is a summary of the white hake catch by gear for fishing year 2012. It appears that longline and hand line comprise a very small portion of the catch. A big thank you goes to Dan for getting this back to you so quickly. Talk to you soon

On Sat, Aug 11, 2012 at 8:37 AM, Marc <ijigcod@mindspring.com> wrote:
Bret

I would like to know out of the 10 mt hake quota (common pool) how much hake in lbs was caught by handgear fisherman. Also provide the percentage out of the 101% That handgear caught.

Please provide the percentage hake caught so far by handgear fisherman compared to the total 2012 hake acl (common pool and sectors). This will be a very low number I suspect.

I will need this data to prepare a letter

Thanks

Please provide raw numbers as fast as possible

Marc

--
Brett Alger
Sustainable Fisheries Division
NOAA - National Marine Fisheries Service
55 Great Republic Drive
Gloucester, MA 01930

Office-(978) 675-2153
Fax-(978) 281-9135
Cell-(978) 290-0186

Brett.Alger@noaa.gov

FY12 Common Pool White Hake Catch by Gear

Gear	STOCK	KEPT_MT	DISCARD_MT	CATCH	CATCH_MT
Otter Trawl	White Hake	5.0	0.0	10,980	5.0
Gillnet	White Hake	4.3	0.5	10,755	4.9
Longline	White Hake	0.2	0.0	500	0.2
Hand Line	White Hake	0.1	0.0	126	0.1
Fish Pot	White Hake	0.0	0.0	2	0.0
N/A	White Hake	0.0	0.0	0	0.0
N/A	White Hake	0.0	0.0	0	0.0
N/A	White Hake	0.0	0.0	61	0.0
Total				22,424	10.2

Values in live weight
Includes estimate of missing dealer reports
Source: NMFS Northeast Regional Office, DMIS database
Run date: August 9,2012

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database.

8/14/2012

EAST WEST TECHNICAL SERVICES LLC

North East Office
86 Mumford Road
Narragansett, RI 02882
Tel: 860 910 4957

South East Office
P.O. BOX 32964
Vero Beach, FL 32963
Tel: 772 226 87964

Fax: 860 223 6005
Email: ewtsct@ewts.com
Web: www.ewts.com

Possessing experience as both a retired observer and commercial fisherman, I am uniquely capable of sympathizing with the position of both parties. I routinely train my cadre of at sea monitor/observer staff to maintain conduct on the fishing vessels which is both minimally invasive and respectful towards the captain and crew. When specific concerns arise regarding the behavior of a particular monitor/observer, I am responsive to constructive feedback and motivated to effectively resolve the problem.

I would certainly agree that legitimate and general problems exist within the current structure of the at sea monitoring/observer program. In order to overcome these obstacles, and support a future in which a sustainable and thriving fishing industry can exist, I believe that it is essential to demand respectful discourse based on accurate and unbiased information. Observers have become an expansive presence within a variety of maritime settings. Given that ignorance often breeds fear and hostility, it may be beneficial for an observer representative to join the Council in order share the perspective of this discipline, gain greater appreciation for the struggles of commercial fisherman, identify common goals, and work towards effective solutions.

I would welcome your thoughts and suggestions, and appreciate your careful consideration of this matter. Should you wish to discuss this further, please don't hesitate to contact me at 860 214 2686 or email jerry@ewts.com

Sincerely,

Jerry Cygler
East West Technical Services

(1)

EAST WEST TECHNICAL SERVICES LLC

North East Office
86 Mumford Road
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Fax: 860 223 6005
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Web: www.ewts.com

To: NEFMC
50 Water Street. Mill 2
Newburyport, MA 01950
Attn: C.M. "Rip" Cunningham, Jr./ Chairman
cc:/ Paul J. Howard / Executive Director

August 3, 2012

Dear Mr. Cunningham:

I enjoyed the opportunity to attend Council meeting on June 20, 2012. While I found the majority of the discourse informative and productive, I was concerned by some statements that seemed to contribute to an atmosphere of animosity and contention between industry fisherman and the observer program. As the observer programs expand and become an increasingly integral component of marine conservation and accountability, I feel that it is necessary to ensure that the Council's multidisciplinary members are offered accurate and objective information that promotes understanding rather than division.

Of specific concern, were a series of remarks made by council member Dave Goethel aimed at discrediting the reputation of the at sea monitoring program. As he addressed the full Council, Mr. Goethel introduced anecdotal and unsubstantiated claims relevant to a particular at sea monitors' tardiness to imply pervasive and perpetual problems with monitor professionalism. Within the context of this public arena, Mr. Goethel also asserted that a specific at sea monitor exposed captain and crew to a communicable oral virus, and he utilized this situation as evidence to suggest a general health safety risk. These remarks were offered in the absence of corroborating data with no identified representative present from the observer/at sea monitoring program to refute the claims or offer an alternate perspective. Presentation of biased, potentially inaccurate information may serve to exacerbate, rather than mollify the tension that exists between fishermen and observers.

a: Council, CBL (8/7)

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
1315 East-West Highway
Silver Spring, Maryland 20910

THE DIRECTOR

AUG 08 2012

Mr. C.M. "Rip" Cunningham, Jr.
Chairman
New England Fishery Management Council
50 Water Street
Newburyport, MA 01950

Dear Mr. Cunningham:

Thank you for your letter regarding the Northeast Multispecies Amendment 16 requirement for industry to pay for fishery monitoring costs beginning in fishing year 2013. I fully appreciate your concern for continued agency financial support for the at-sea monitoring program.

Given recent developments in this fishery, in particular the Gulf of Maine cod stock assessment, NOAA's National Marine Fisheries Service has included a request for funding in the 2013 budget to support 50 percent of the cost of at-sea monitors and full support for observer coverage in the Northeast. The final amount of available funding will depend on the congressional appropriation process.

I understand the importance of this issue to the industry; finding flexibility to provide relief to the New England groundfish fleet during this difficult time is important to me as well. If you have further questions, please contact the NMFS Northeast Regional Office, Sustainable Fisheries Division, at (978) 281-9315.

Sincerely,

Samuel D. Rauch III
Deputy Assistant Administrator
for Regulatory Programs,
performing the functions and duties of the
Assistant Administrator for Fisheries

THE ASSISTANT ADMINISTRATOR
FOR FISHERIES

c: TN, FH, CB, PMF (8/13)

(3)

New England Fishery Management Council
50 WATER STREET | NEWBURYPORT, MASSACHUSETTS 01950 | PHONE 978 465 0492 | FAX 978 465 3116
C. M. "Rip" Cunningham, Jr., *Chairman* | Paul J. Howard, *Executive Director*

August 17, 2012

The Honorable Rebecca Blank
Acting Secretary of Commerce
1401 Constitution Ave, N.W.
Herbert C. Hoover Building, Room 5838
Washington, DC 20230

Dear Acting Secretary Blank:

In our August 6 letter to you regarding the serious economic conditions threatening the New England groundfish industry, we attached letters from New Hampshire governor, John Lynch and Maine governor, Paul LePage; however, we neglected to attach Massachusetts Governor, Deval Patrick's letter.

Our apologies for any confusion this might have caused.

We hope you find this letter useful as you deliberate on a response. Meanwhile, should you have any questions about the information I have provided, please do not hesitate to contact me.

Sincerely,

C.M "Rip" Cunningham, Jr.
Chairman

attachment

OFFICE OF THE GOVERNOR
COMMONWEALTH OF MASSACHUSETTS
STATE HOUSE • BOSTON, MA 02133
(617) 725-4000

DEVAL L. PATRICK
GOVERNOR

TIMOTHY P. MURRAY
LIEUTENANT GOVERNOR

November 15, 2011

The Honorable John E. Bryson, Secretary
U.S. Department of Commerce
1401 Constitution Ave., NW
Washington, D.C. 20230

Dear Secretary Bryson:

Massachusetts fishermen have suffered severe economic hardship under the federal government's latest set of fisheries regulations. I write to ask for your help in formally declaring what we in Massachusetts have known for some time: the Massachusetts multispecies groundfish fishery is suffering a fishery resource disaster.

In November 2010, I made a request to the Department of Commerce to provide $21 million in direct economic relief to the Massachusetts groundfish fleet for the impact caused by the implementation of and transition to catch shares. To support this request, I submitted a comprehensive Massachusetts Marine Fisheries Institute Report ("MFI Report") which detailed the economic harm Massachusetts fishermen have suffered under Amendment 16, or "catch shares." Specifically, the report estimated that fishermen would suffer $21 million in lost revenue considering the difference between the value of groundfish allocated to fishermen in 2010 and the annual average landings produced by the same fishermen between 2007 and 2009.

The Department denied my request in January of this year. In that denial, however, Secretary Locke and Assistant Administrator Schwaab suggested economic disaster aid could be available in the future.

Specifically, Assistant Administrator Schwaab noted: "[H]ow sector management is affecting individual fishermen and communities is worth further research in Massachusetts and other states. We want to work with you and the Council to analyze economic data more closely . . . and to identify any fishermen and communities that may be in need of targeted assistance."

We have diligently conducted that research, and the new data gathered shows in greater detail how catch shares have had a devastating impact on the Commonwealth's groundfish fishery. In response to Assistant Administrator Schwaab's offer, Massachusetts has worked collaboratively with the National Oceanic and Atmospheric Administration (NOAA), its National Marine Fisheries Service (NMFS), and researchers from the University of Massachusetts Dartmouth's School of Marine Science and Technology (SMAST) to further define economic impacts previously documented in the MFI's 2010 report. The Massachusetts Division of Marine Fisheries (DMF) has also analyzed finer scale data as it relates to specific fishery sectors. As detailed below, these studies, along with NOAA's 2010 Final Report on the Performance of the Northeast Multispecies (Groundfish) Fishery May 2010-April 2011 ("NOAA's 2010 Performance Report") and the previously issued MFI Report, demonstrate that federal regulations and management policies have caused a significant consolidation of the groundfish fleet, loss of jobs, and reduced revenues - all of which have combined to create a fishery resource disaster for the Massachusetts multispecies groundfish fishery.

Industry Consolidation:

NOAA's 2010 Performance Report details a significant shift in the distribution of revenue under catch share management. Specifically, the report analyzed the full year performance of the Northeast groundfish fishery. It shows that, over the past four years, 10% of fisherman accounted for the following total groundfish revenue:

2007 = 45.9%
2008 = 46.9%
2009 = 47.7%
2010 = 57.7%

The 2010 data, compiled at the conclusion of the first year of catch share implementation, shows a statistically significant jump to 10% of fisherman accounting for 57.7% of groundfish revenue. This documents an unexpected and rapid concentration of groundfish revenues being consolidated in fewer individual vessels.

These findings are further verified by a just-released Break-Even Analysis of the New England Groundfish Fishery for FY2009 and FY2010 ("Break-Even Analysis") [Attachment 1], a joint DMF/SMAST/NOAA report that seeks to determine break-even points for vessels by gear category and size. According to the report, fewer vessels participated in the groundfish fishery region-wide during FY2010 following catch share implementation than did so during FY2009. The Break-Even Analysis provides evidence that rapid consolidation has occurred, with 109 fewer vessels fishing for groundfish in 2010 than in 2009, representing a 23 percent decline. This data illustrates the economic impact federal regulations have had on our fishing industry.

Sector-Level Losses:

Additionally, DMF has just issued the Comparative Economic Survey and Analysis of Northeast Fishery Sector 10 (Sector 10 Analysis) [Attachment 2] that details losses at specific fishery sectors. The report concludes that severe economic losses occurred in Sector 10. Between 2009 and 2010, groundfish landings decreased by 61 percent, forcing a 52 percent drop in groundfish revenue - equivalent to $1,567,000. The sector's total revenue decline of 24 percent would have been much higher if not for a dramatic and unsustainable shift in effort by fishermen to non-groundfish species. Significantly, this shift to non-groundfish species does not come without costs. It is likely to have negative conservation and management implications for other fisheries, as well as potential adverse economic impacts on the revenues of other non-groundfish fishermen.

The transition to catch shares has had a devastating effect on Massachusetts small boat operators in Sector 10. Specifically, in this one sector alone the implementation of catch shares has caused 27 small business owners to lose $1,567,000 in FY2010. Also in this sector, 30 percent of permit holders lost at least 80 percent of their groundfish revenue, worth $301,000, while 52 percent lost at least half their revenue,

worth $667,000. Assembling this report required the cooperation of all Sector 10 members who volunteered confidential information that enabled DMF to determine their fishing costs. While Massachusetts fishing sectors are not homogeneous, we believe the Sector 10 Analysis is illustrative of similar losses across all sectors, particularly among small boat owners.

Furthermore, as part of the Sector 10 Analysis, DMF also compared 2010 aggregate information for all sectors and the common pool that lost revenue versus sectors and the common pool that gained revenue based on groundfish trips alone. This comparison showed total revenue was down approximately $11 million for 12 of 17 sectors and the common pool. Although we do not have an extensive Sector 10-like analysis informed by the voluntary sharing of confidential business information to evaluate the entire fishery, it is clear from conversations with sector managers that even the five sectors that had revenue gain in 2010 included many members who lost revenue.

Economic Disaster Assistance is Warranted:

Small boat operators are being forced out of business, and many other larger boats are failing to break even. NOAA's 2010 Performance Report notes that, under Amendment 16, "more nominal value was obtained from fewer fish" in 2010. While this may be true in the aggregate, as noted above and in the same NOAA report, this value has not been equally apportioned. The livelihood of these fishermen is at risk because of Amendment 16.

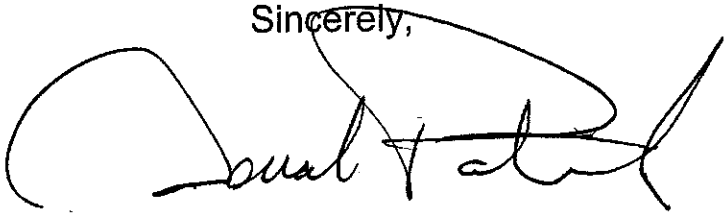
As NOAA's own data confirms, the Massachusetts groundfish fleet is experiencing a significant and rapid consolidation, imperiling our historic and economically important commercial fishing industry. DMF's report details $11 million in losses across 12 of the 17 sectors and the common pool. When the additional information available from NOAA's 2010 Performance Report, DMF's Sector 10 Analysis, and the Break-Even Analysis is taken together, the total disaster assistance needed for Massachusetts fishermen approaches the $21 million in our original request.

The Commonwealth is committed to working with NMFS to develop a detailed application process to ensure only adversely impacted fishermen

are eligible for assistance, and would urge the Department to take a broad view of our application in determining an adequate and fair award. The Commonwealth, for its part, commits to work with NMFS to develop a transparent and expeditious plan for disbursement of any federal fishing disaster funds that will assist those in need, as well as to find ways to assist adversely impacted crew members with health and other social service assistance.

I am personally committed to continuing to serve as a constructive voice for fisheries management reform and I look forward to a strong working relationship with you and your team to protect the economic viability of our fishing communities while maintaining a sustainable fishery.

Sincerely,



CC:
Jane Lubchenco, Administrator, National Oceanic and Atmospheric Administration
Eric Schwaab, Assistant Administrator, National Marine Fisheries Service
Patricia Kurkul, Northeast Regional Administrator, National Marine Fisheries Service
Senator John Kerry
Senator Scott Brown
Representative Michael E. Capuano
Representative Barney Frank
Representative William Keating
Representative Stephen F. Lynch
Representative Ed Markey
Representative James McGovern
Representative Richard E. Neal
Representative John Olver
Representative John Tierney
Representative Niki Tsongas
Mayor Scott Lang, New Bedford
Mayor Carolyn Kirk, Gloucester

Richard K. Sullivan, Jr., Massachusetts Secretary of Energy and Environmental Affairs
Bill White, Assistant Secretary for Federal Affairs, Massachusetts Energy and Environmental Affairs
Mary B. Griffin, Massachusetts Commissioner of Department of Fish and Game
Paul J. Diodati, Massachusetts Director of Division of Marine Fisheries

Example of 132 received

Karen Roy

From: Ted Ames <mail@change.org>
Sent: Thursday, August 23, 2012 10:10 AM
To: Rip Cunningham
Subject: Save Family Fishermen, Save the Fish: Consolidation is NOT Conservation

Greetings,

I just signed the following petition addressed to Rip Cunningham, chair of the New England Fishery Management Council.

Dear Mr. Cunningham,

It's time to stop crisis management and start fixing the core problems. Consolidation of the fishing industry and lack of protections threaten the fish and the family fishermen and leads to one crisis after another that distracts the Council from dealing with the real problems facing our ocean. In just two years of the new Catch Share policy, we have seen what it can do to the fish stocks that fishermen worked so hard to rebuild.

The Council can't hide behind short term emergencies that are rooted in problems associated with consolidation and the disappearance of family fishermen. This is a major problem because family fishermen support local economies, a healthy ocean, and access to locally harvested food.

I urge you to adopt policies that protects fleet diversity, levels the playing field for family fishermen, and ensures that the rights and access to fish are NOT concentrated into the hands of a few players.

Consolidation is not conservation.

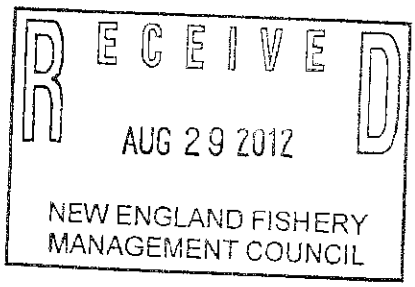
Sincerely,

Retired groundfish fisherman and scientist

Ted Ames
Stonington, Maine

NORTHEAST SEAFOOD COALITION

August 28, 2012



C.M. "Rip" Cunningham
Chairman
New England Fishery Management Council
50 Water Street Mill 2
Newburyport, MA 01950

Dear Rip,

Please find the attached memo that sets forth an analysis of the MSA section 304(e)(6) "Interim Measures" authority and process used by the Council and Agency to "reduce overfishing" on the Gulf of Maine cod stock in fishing year 2012, and how this authority might be applied as a tool, hopefully one of many, for certain stocks in fishing year 2013.

This memo was prepared internally for our own use but I thought the Council might find it useful as well. Also attached are the two letters from the Agency to the Council referenced in the memo.

Briefly, based on this analysis it appears that this authority could be applied at a minimum to the Gulf of Maine cod stock for a second year in fishing year 2013. In addition, it appears this authority could be applied to the Gulf of Maine haddock stock in fishing year 2013.

In either case, implementation of this authority would require a timely request from the Council to the Agency to implement such Interim Measures to reduce overfishing in FY 2013.

For your information, we recently provided and discussed this memo with Sam Rauch and is currently under his review.

We hope this information is useful. NSC leadership looks forward to working with you and members of the Council in the coming days on measures to be developed and considered for fishing year 2013 and beyond.

Sincerely,

Jackie Odell

Jackie Odell
Executive Director

4 Parker Street Gloucester, MA 01930 Tel: (978) 283-9992
62 Hassey Street New Bedford, MA 02740
www.northeastseafoodcoalition.org

c: TN, PMF (8/29), CJ

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
55 Great Republic Drive
Gloucester, MA 01930-2276

MAY 30 2012

Mr. C.M. "Rip" Cunningham, Jr., Chairman
New England Fishery Management Council
50 Water Street, Mill 2
Newburyport, MA 01950

Dear Rip:

As you know, the status of several stocks under the Northeast Multispecies Fishery Management Plan (FMP) have changed from the 2007 Groundfish Assessment Review Meeting (GARM) III assessment as the result of either new benchmark[1] or operational stock assessments[2] conducted in the fall of 2011 and winter of 2012. As a result, we are providing the Council official notification of these stock status changes and, where necessary, actions the Council must undertake, as follows:

- Acadian redfish is rebuilt
- Southern New England/Mid-Atlantic (SNE/MA) windowpane flounder is rebuilt
- Winter flounder:
    - The George's Bank (GB) stock is no longer overfished, is not subject to overfishing, and is likely to be rebuilt by 2014
    - The SNE/MA stock is no longer subject to overfishing but remains overfished and is making insufficient rebuilding progress
    - The Gulf of Maine (GOM) stock is no longer subject to overfishing; however, its status relative to being overfished could not be determined by the operational assessment
- GOM haddock is now subject to overfishing and is approaching an overfished condition
- American plaice is making insufficient rebuilding progress. The stock is neither overfished nor subject to overfishing.

The following stocks' status did not change as a result of the operational stock assessments; however, these stocks continue to be subject to overfishing and/or are overfished, as indicated below:

- GB cod, Cape Cod/GOM yellowtail flounder, witch flounder, and GOM/GB windowpane flounder are all overfished and subject to overfishing
- Ocean pout, Atlantic wolffish, and Atlantic halibut are overfished.

[1] Northeast Fisheries Science Center. 2011. 52nd Northeast Regional Stock Assessment Workshop (52nd SAW) Assessment Report. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 11-17; 962 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026

[2] Northeast Fisheries Science Center. 2012. Assessment or Data Updates of 13 Northeast Groundfish Stocks through 2010. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 12-06; 789 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026

We have discussed GOM cod at length in recent months and, as you know, the stock is overfished, subject to overfishing, and is making inadequate rebuilding progress based on the December 2011 benchmark assessment[3].

I congratulate the Council on the rebuilt status of both redfish and SNE/MA windowpane flounder. Anytime a stock achieves rebuilt status, it is good news. However, there remain several stocks for which the Council must end overfishing and accomplish rebuilding. There are a few notable, more complex situations with additional guidance, as follows:

GOM haddock

Consistent with § 304(e)(1) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), GOM haddock is now subject to overfishing and is approaching an overfished condition. Projected biomass resulting from catch projections in the operational assessment indicate that the stock will decline below the overfished threshold within 2 years from the terminal year of the assessment, 2010. Should this stock become overfished based on realized catch, steps must be taken under MSA § 304(e)(3) and (4) to end overfishing and to rebuild the stock. If the stock is confirmed as overfished, we will notify you.

American plaice/SNE/MA winter flounder

The American plaice and SNE/MA winter flounder rebuilding programs are not making adequate progress toward rebuilding those stocks. The 2012 operational assessment indicates that the American plaice stock cannot reach rebuilt status by its rebuilding plan target date of 2014, even in the absence of all fishing mortality between now and then. The Stock Assessment Workshop (SAW) 52 assessment concluded that there would be less than a 1-percent chance that SNE/MA winter flounder would rebuild by 2014, the rebuilding period end date, if no fishing mortality were allowed between 2012 and 2014.

Thus, on behalf of the Secretary and consistent with MSA § 304(e)(7), we are notifying you that the American plaice and SNE/MA winter flounder rebuilding programs have not resulted in adequate progress toward rebuilding the stocks. Therefore, revised rebuilding plans must be implemented for both stocks within 2 years, as required by MSA § 304(e)(3). The current FMP measures for these two stocks are effectively preventing overfishing. We expect the council to continue to make use of the current measures, or similar reduction measures in the interim while the rebuilding programs are revisited.

We will, of course, provide advice and collaborate on the development and implementation of the required measures outlined above. Should you have any questions or concerns about this letter, please contact staff in our Sustainable Fisheries Division--George Darcy, Assistant Regional Administrator for Sustainable Fisheries, (978) 281-9331; or Sue Murphy, Groundfish

[3] Northeast Fisheries Science Center. 2012. 53rd Northeast Regional Stock Assessment Workshop (53rd SAW) Assessment Report. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 12-05; 559 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026

All assessment reports available online at http://www.nefsc.noaa.gov/nefsc/publications/

Team Supervisor, (978) 281-9252; or for legal counsel, contact Gene Martin, General Counsel, Northeast, (978) 281-9242.

Sincerely,

Daniel S. Morris,
Acting Regional Administrator

Cc: Captain Paul Howard, Executive Director, New England Fisheries Management Council
Dr. William Karp, Acting Director, Northeast Fisheries Science Center
Carrie Selberg, Acting Director, Office of Sustainable Fisheries

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
1315 East-West Highway
Silver Spring, Maryland 20910

THE DIRECTOR

JAN 26 2012

Mr. C.M. "Rip" Cunningham, Jr., Chairman
New England Fishery Management Council
50 Water Street, Mill 2
Newburyport, MA 01950

Dear Mr. Cunningham:

The final results of the 53rd Stock Assessment Workshop were released on January 23, 2012.[1] As has been widely discussed, the final results confirm that Gulf of Maine (GOM) cod is overfished and overfishing is occurring. In addition, the assessment results indicate that the GOM cod stock cannot rebuild by 2014 even in the absence of all fishing mortality.

Given the final results from the GOM cod assessment, and particularly the fact that rebuilding could under no circumstances be achieved within the current rebuilding timeframe, the Secretary of Commerce has determined, pursuant to Section 304(e)(7)(B) of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), that the Northeast Multispecies Fishery Management Plan (FMP) has not resulted in adequate progress toward ending overfishing and rebuilding GOM cod. This lack of adequate progress was not due to any failure on the part of the New England Fishery Management Council (Council) to take necessary action to meet the requirements of the Magnuson-Stevens Act, nor was it due to any failure on the part of fishery participants to act in compliance with applicable regulatory measures. Rather, the lack of adequate progress is due to a new and significantly revised understanding of the condition of the stock since the 2008 assessment was completed.

Now that the Council has been notified of this lack of progress in rebuilding GOM cod and ending overfishing, the Council, pursuant to § 304(e)(3) of the Magnuson-Stevens Act, must prepare and submit to the Secretary an action that will end overfishing immediately in the fishery and revise the rebuilding program for GOM cod, consistent with the new stock assessment information. Although Framework 47 was originally intended to implement annual catch limits for GOM cod in fishing year 2012 consistent with the new stock assessment, it is our understanding that, based on recent Executive Committee and Groundfish Committee meetings, the Council does not intend to establish an annual catch limit for GOM cod in this framework. Rather, Council members have expressed that they will likely request the Secretary to implement

[1] Northeast Fisheries Science Center. 2012. 53rd Northeast Regional Stock Assessment Workshop (53rd SAW) Assessment Summary Report. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 12-03; 33 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026

THE ASSISTANT ADMINISTRATOR
FOR FISHERIES

an emergency or interim action to reduce rather than end overfishing and include additional management measures to mitigate impacts of a reduced annual catch limit for the next fishing year, while the Council develops revisions to the FMP in response to the new assessment. Such a request, based on legal advice, appears to be consistent, within limits, with section 304(e)(6) of the Magnuson-Stevens Act, which allows the Secretary to implement interim measures to reduce but not end overfishing.

We understand that the Council plans to develop some recommendations for NOAA's National Marine Fisheries Service during its February 1 groundfish discussion at the upcoming Council meeting indicating preferences for 2012 fishing year GOM cod catch levels and management measures for use in the emergency/interim action. We believe this will be very beneficial if we decide to implement Secretarial emergency or interim measures for 2012. We are hopeful that the Council will consider a wide array of management measures, including measures for the recreational fishery.

Any emergency/interim action taken by the Secretary in response to the Council's anticipated request must make a substantial reduction in overfishing and must, at a minimum, not further deteriorate the condition of the stock. Additionally, any action under section 305(c) cannot exceed one year in duration. Because GOM cod is already under a plan designed to prevent overfishing, any temporary reprieve from addressing overfishing requirements immediately while the Council revises its rebuilding program can only be justified for fishing year 2012. Therefore, measures that would end overfishing on the GOM cod stock must be implemented effective May 1, 2013.

As provided in § 304(e)(3), the Council's revised GOM cod rebuilding program must be implemented no later than two years following this notification. However, we hope that the Council can develop a revised rebuilding plan for implementation at the beginning of fishing year 2013 so that it will coincide with the measures to end overfishing at the same time. We will work closely with you on the development of this rebuilding plan to achieve that goal and will provide guidance on the appropriate rebuilding period.

As NMFS and the Council consider pursuing this unprecedented approach to addressing the unique situation we are now in with GOM cod, we recognize there are many policy determinations that must be addressed for the first time and that the Council will require guidance from the agency. We appreciate your patience and collaboration as we move ahead through the process to set appropriate measures for the coming years.

We recognize fully the importance of the GOM cod fishery to both stakeholders and the Council. I believe the response from both the Council and the agency to date reflects the extraordinary circumstances we find ourselves in, as well as the extraordinary steps all parties have undertaken to try and find the optimal way forward. Much remains to be decided and done, but we stand ready to continue these efforts moving forward and look forward to collaborating with the Council to incorporate the new stock assessment advice into managing the GOM cod stock. Given the evolving nature of both the agency and Council response, I expect we or our staff will

be in frequent contact in the months leading up to the May 1 start of the fishing year. I will be attending the upcoming Council meeting along with many of my key staff working on this issue and look forward to seeing you then. Should you have questions or concerns over this letter, please contact George Darcy, Assistant Regional Administrator for Sustainable Fisheries at 978-281-9331.

Sincerely,

Samuel D. Rauch III
Acting Assistant Administrator
for Fisheries

cc: Paul Howard, New England Fishery Management Council Executive Director
Daniel Morris, Acting Northeast Regional Administrator
Dr. William Karp, Acting Director, Northeast Fisheries Science Center

FY 2013 Groundfish Impacts Mitigation & Interim Measures Authority

Preliminary results of recent stock assessment updates for the following stocks have been released by the Agency (and US-CAN TRAC): Georges Bank cod, Gulf of Maine cod, Gulf of Maine haddock, Georges Bank yellowtail flounder, Cape Cod/Gulf of Maine yellowtail flounder, SNE/MA winter flounder and American Plaice (dabs).

These preliminary results suggest the need for catastrophic reductions in the ACLs for most of these stocks in fishing year 2013.

It should be noted, however, that these preliminary results may be modified in a positive or negative direction by the following future processes:

- the SSC met on August 24th to begin its process of making final recommendations for FY2013 catch limits (specifications) to the Council and will hold at least one additional meeting in September. The SSC has the authority to consider additional scientific information (data and analyses) which may alter the preliminary results.

- the Agency plans to perform new benchmark stock assessments for both GOM cod and GB cod that will conclude in December 2012. The SSC will meet again to consider the results of these benchmark assessments and make final recommendations for FY 2013 specifications/catch limits to the Council. The Council will set final FY 2013 ACLs at its January 2013 meeting based on the SSC's recommendations.

- the US-Canada TMGC has yet to consider the stock assessment results of the TRAC for eastern GB cod, eastern haddock and yellowtail flounder and are scheduled to do so in early September. The TMGC may have some latitude in interpreting the TRAC results.

One of many potential mitigation tools that have been discussed is the application of the 'interim measures' process set forth in Magnuson-Stevens Act (MSA) section 304(e); the authority that was used to address the Gulf of Maine cod stock in current Fishing Year 2012. An excerpt from the statute of these provisions is attached near the end of this document.

The following Section 1 describes in significant detail how this process works. Section 2 below analyzes how this process relates to each of the stocks cited above. There is a brief summary at the end.

1) Interim Measures Process

In general—

MSA section 304(e) includes a step-wise process (below) for implementing under specific circumstances *"interim measures"* that have the potential to directly (but temporarily) mitigate the anticipated ACL reductions cited above, and facilitate the implementation and effectiveness of other mitigation tools by essentially 'buying time' before having to meet the various MSA mandates to *"end overfishing immediately", "stop overfishing"* and *"prevent overfishing"*.

Importantly, such *"interim measures"* are specifically exempted in the statute from the requirements to "stop overfishing" or "end overfishing immediately", etc. Instead, such measures are authorized to *"reduce overfishing"* until replaced by a plan, plan amendment or regulations that will end overfishing immediately.

Also importantly, it is my interpretation that this process can be extended for two consecutive fishing years if/as needed. This would require the implementation by the Agency of 2 consecutive interim rules pursuant to MSA section 305(c) *"Emergency Actions and Interim Measures"* (see Step 3 below). This is particularly relevant to how the GOM cod will be managed in FY 2013 and thus, the impacts on the industry.

To my knowledge, as confirmed by the Agency, this process has been used only once. That was in the case of Gulf of Maine cod with respect to current fishing year 2012. Application of the "interim measures" authority to reduce rather than end overfishing immediately resulted in an FY 2012 catch limit for GOM cod nearly 5 times higher than it would have been; literally saving the fishery from economic collapse. Also important, it has provided more time to perform a comprehensive reevaluate the data, modeling and other analyses through a comprehensive benchmark assessment scheduled for December 2012, as well as time to develop and implement other mitigation tools.

3-Step Process—

STEP 1: Identifications and Notifications.

Note: there are two separate paths under section 304(e) – **Identifications** under paragraph 304(e)(1) and **Notifications** under paragraphs 304(e)(2) and (7) -- both leading to STEP 2.

Path 1: Identification of stocks that are overfished or approaching a condition of being overfished under section 304(e)(1).

- Pursuant to section 304(e)(1) the Agency must identify and annually report to Congress and the Council any *"fisheries that are overfished or are approaching a condition of being overfished".*

- The term *"approaching a condition of being overfished"* is 'defined' as *"based on trends in fishing effort, fishery resource size, and other appropriate factors, the Secretary estimates that the fishery will become overfished within two years."*

Path 2: Notifications.

Note: While there are technically two separate **notification** processes set forth in section 304(e), for practical purposes in this discussion the **notification** required under 304(e)(2) *"that a fishery is overfished"* is functionally equivalent to and covered by the **identification** of *"fisheries that are overfished"* under section 304(e)(1) discussed above under Path 1. Thus, I will only address the **notification** process set forth under section 304(e)(7) as follows.

Notification that Adequate Progress not being made under section 304(e)(7).

- MSA section 304(e)(7) requires the Agency to review existing fishery management plans, amendments and regulations (which includes rebuilding plans) developed pursuant to the section 304(e) requirements to end overfishing and rebuild overfished fisheries no less often than every two years.

- The purpose of this review is to determine if such management measures are making *"adequate progress toward ending overfishing and rebuilding affected fish stocks".*

- If the Agency finds that adequate progress is not being made, it is required to notify the appropriate Council and recommend further conservation and management measures.

STEP 2: Development and Implementation of New Management Measures.

- An identification of fisheries that are overfished or are approaching a condition of being overfished pursuant to section 304(e)(1) under STEP 1, Path 1, triggers section 304(e)(3).

- A notification that *"adequate progress"* is not being made under STEP 1, Path 2, pursuant to section 304(e)(7) also triggers section 304(e)(3).

- Section 304(e)(3) requires that upon receiving such identifications or notifications in STEP 1, the appropriate Council shall *"prepare and implement"* new management measures for a fishery in the form of a plan, plan amendment or regulations, *"to end overfishing immediately"* and *"rebuild affected stocks of fish"*—or in the case of a fishery that is *"approaching a condition of being overfished"*, such measures must *"prevent overfishing"*.

- The Council must *"prepare and implement"* such new measures within 2 years after receiving any identification or notification under STEP 1.

STEP 3: Interim Measures during development of new management measures.

- MSA section 304(e)(6) provides the Council with the authority to request the Agency to implement *"interim measures"* while it is developing new management measures under STEP 2 pursuant to section 304(e)(3).

- While the new management measures developed under STEP 2 must either *"end overfishing immediately"* or *"prevent overfishing"* (as explained above), the *"interim measures"* implemented under this STEP 3 are only required to *"reduce overfishing"*.

- I note that when this process was applied to the case of GOM cod in FY 2012, *"reduce overfishing"* was interpreted to mean a Fishing Mortality Rate (F) below that of the previous year.

- As noted above, section 304(e)(6) requires the Agency to implement *"interim measures"* by using the authority and process set forth in MSA section 305(c) *"Emergency Actions and Interim Measures"*. This process allows for "interim measures" that are "needed to reduce overfishing" to be implemented for up to a total of 366 days (initial180 days + 186 day extension); effectively 1 year. (see excerpt of statute attached below).

  However, I note that there is nothing in section 305(c) that prevents the Council from requesting, or the Agency from implementing, a second consecutive set of *"interim measures"* that would apply to the next fishing year—ie. back-to-back Interim Rules.

  Indeed, the process set forth under section 304(e)(3) under STEP 2 very clearly and specifically contemplates up to a 2-year process to *"develop and implement"* new management measures when triggered by an identification or notification under STEP 1.

Thus, by extension, it follows that Congress intended for *"interim measures"* to reduce overfishing under section 304(e)(6) to be implemented for up to two years "during the development" of those new management measures.

In my opinion, the correct interpretation of this process is that the Agency has authority to implement at the request of the Council two consecutive *"interim measures"* (Interim Rules) pursuant to section 305(c) in order to provide sufficient time to develop new measures under section 304(e)(3). This has major implications for the GOM cod stock in FY 2013 as explained below (and potentially other stocks in the future).

2) Application of Interim Measures Process to Specific Stocks

Gulf of Maine cod

- The Agency and Council have followed the 3-step process to implement *"interim measures"* now in place for this stock in FY 2012. This is clearly set forth in the Agency's January 26, 2012, letter to the Council (attached).

- Consistent with section 304(e)(3), I am advised by Council staff that the Council intends (has not yet begun) to *"prepare and implement"* a Framework action to revise the GOM cod rebuilding plan for implementation beginning in fishing year 2014 (May 1, 2014) — roughly consistent with the *"within two years"* time requirement. Also consistent with section 304(e)(3), this Framework is intended to "end overfishing immediately" and rebuild this stock.

- However, in its January 26, 2012, letter to the Council, I believe the Agency incorrectly asserted that these interim measures for GOM cod can only remain in place for 1 year (FY 2012). The explanation presented in the letter (see page 2, second full paragraph) is as follows:

> *"Additionally, any action under section 305(c) cannot exceed one year in duration. Because GOM cod is already under a plan designed to prevent overfishing, any temporary reprieve from addressing overfishing requirements immediately while the Council revises its rebuilding program can only be justified for fishing year 2012. Therefore, measures that would end overfishing on the GOM cod stock must be implemented effective May 1, 2013. (emphasis added)*

- This is inconsistent with the clear intent set forth in the section 304(e) process generally—and in sections 304(e)(3) and (6) specifically:

    - As explained in STEP 3 above, while it is true that any single Interim Rule implemented under section 305(c) cannot exceed 1 year in duration, the statute does not in any way limit the authority of the Council to request or the Agency to implement a second Interim Rule that immediately follows the first. Thus, as with the first GOM cod Interim Rule for Fishing Year 2012, this second Interim Rule can implement *"interim measures"* that *"reduce overfishing"* for the second year of the ongoing two-year process to *"develop and implement"* new management measures (a revised GOM cod rebuilding plan) under section 304(e)(3). This would be consistent with the clear intent of the section 304(e) *"interim meosures"* process.

    - As explained in STEP 1 above, the section 304(3)(7) notification process applies by definition to a stock that "is already under a plan designed to prevent overfishing". The Agency's letter appears to incorrectly assert that section 304(e)(6) "interim measures" cannot apply to a stock for which there is an existing plan. In fact, the implementation of *"interim measures"* is precisely for the purpose applying temporary measures while new measures are developed to replace and improve an existing plan.

- I note that at this writing, the Council staff feels it must operate according to the content of the Agency's January 26, 2012, letter and, therefore, its current plans are to set an ACL for FY 2013 that will "end overfishing immediately". This would be catastrophic to the industry unless a very drastic change in the stock status emerges from the benchmark assessment in December.

- The Agency should revise its advice to the Council and clarify that the Council may request, and the Agency may implement, a second Interim Rule setting forth *"interim measures"* to *"reduce overfishing"* in Fishing Year 2013.

Gulf of Maine haddock

- Based on the preliminary results of the recent stock assessment update the Agency has identified this stock as *"approaching a condition of being overfished"*.

- Pursuant to section 304(e)(1), the Agency is required "report to" the Council (and Congress) of this identification.

- In a May 30, 2012 letter to the Council (attached), the Agency officially "reported" this identification to the Council (STEP 1).

- This identification triggers the requirement for the Council to develop new management measures to *"prevent overfishing"* under STEP 2 pursuant to section 304(e)(3). The Council has up to 2 years to *"prepare and implement"* these new measures.

- STEP 2 triggers the authority for the Council to request the Agency to implement *"interim measures"* under STEP 3 during the development of new measures under STEP 2. These *"interim measures"* only need to *"reduce overfishing"*.

- Although far from certain at this time, a preliminary review of the numbers appears to suggest that such *"interim measures"* might provide a significantly higher ACL in FY 2013 than if the Council is otherwise required to *"end overfishing immediately"* .

- The Council should consider making this request to the Agency as a mitigation tool to potentially allow for a higher catch limit on this stock in FY 2013 and, as needed, FY 2104.

Georges Bank yellowtail flounder and Georges Bank cod

- While the details of the domestic management and legal treatment of these two GB stocks are different in some respects (due to the IFAC Act), my expectation is that the USG will act as if it is legally bound by the recommendations of the US/Canada TMGC process for both stocks. In other words, the Agency will reject the notion that it has any authority to invoke the 3-step process to implement *"interim measures"* that would only require *"reducing overfishing"*.

- For the record, I do not believe the recommendations of the TMGC are, in fact, legally binding on the United States pursuant to the US/Canada Understanding (which does not meet the test of the Case-Zablocki Act). If I am correct, it would be theoretically possible for the US to derogate from the Understanding/TMGC recommendations and implement *"interim measures"* that set a catch limit for this stock that is higher than the TMGC recommendation. However, this would likely seriously damage future US CAN bilateral management cooperation and I just can't see this happening.

- The TMGC generally recommends a sustainable fishing mortality rate "F reference" (Fref). This is essentially the functional equivalent of Fmsy—which by definition would prevent overfishing. Again, I expect the Agency will successfully argue that it is at least

politically/morally bound by the TMGC's Fref recommendations for GB stocks which satisfy the MSA "end *overfishing immediately*" requirement. Note this Fref rate would, of course, be lower than the F rate associated with simply 'reducing' overfishing under section 304(e)(6) *"interim measures"*.

- To date, the most/only effective mitigation tool we have found for this stock has been implementation of the process set forth in FW47 to provide for in-season transfers of 'unused' GB yellowtail flounder allocations from the scallop fishery to the groundfish fishery.

- As noted above, a comprehensive review of the data, modeling and other analyses for this stock will be performed as part of a benchmark assessment scheduled for December 2012. There are a number of important questions and concerns with the current assessment modeling and methodologies which may be addressed.

- Additional mitigation measures will likely be needed to address this stock.

Cape Cod/Gulf of Maine yellowtail flounder

- According to the Agency's May 30, 2012, letter to the Council, this stock remains both overfished and subject to overfishing.

- However, the Agency did <u>not</u> make a finding that the rebuilding plan has failed to make adequate progress toward ending overfishing or rebuilding under section 304(e)(7).

- Absent this finding and associated notification of the Council, there does not appear to be any mechanism to trigger the section 304(e)(6) *"interim measures"* process to "reduce overfishing" rather than end it.

- Note: Notwithstanding the above, the preliminary estimates recently released by the Agency indicated a possible ACL reduction of 45% for this stock in FY 2013. Thus, additional mitigation measures should be considered for this stock.

American plaice & SNE/MA winter flounder

- In its May 30, 2012, letter the Agency has pursuant to section 304(e)(7) notified the Council that the rebuilding programs for both of these stocks "have not resulted in adequate

progress" toward rebuilding these stocks (Step 1). The Agency further indicates that neither stock will reach its rebuilding target within their respective rebuilding timeframes even with zero fishing mortality.

- This notification triggers the Step 2 section 304(e)(3) requirement for the Council to "prepare and implement" within 2 years new management measures to rebuild these stocks—ie. revise the current rebuilding plans.

- However, in its letter the Agency also indicates that neither stock is subject to overfishing – that current measures achieve fishing mortality rates that are below the overfishing level. The Agency suggests that current measures be maintained in the interim while the rebuilding plans are revised under section 304(e)(3).

- This is a curious situation indeed. Because overfishing is not occurring, it would appear there is no basis to implement *"interim measures"* under section 304(e)(6) in order to *"reduce overfishing"*. Instead it appears that at best any section 304(e)(6) *"interim measures"* would likely maintain current measures and, thus, there would be no mitigation benefit there from.

- Note: notwithstanding the above, the preliminary results of the stock assessment update for American plaice indicates a possible ACL reduction of 69%. Because there does not appear to be any mitigation benefit that can be secured from the 3-step *"interim measures"* process outlined above, additional mitigation measures should be considered for this stock.

Summary—

- Without knowing precisely what the specific differences in catch limits would be, application of the *"interim measures"* process to reduce rather than end overfishing immediately in FY 2013 would appear to have potential utility/benefit for the Gulf of Maine haddock stock. The Council should make a request to the Agency to implement such measures pursuant to section 304(e)(6).

- Analysis of MSA sections 304(e) and 305(c) indicates that authority exists for the Council to request and the Agency to implement *"interim measures"* for the GOM cod stock for a second year to reduce rather than end overfishing immediately in FY 2013.

- It does not appear that the "interim measures" process will be applied to the Georges Bank cod or yellowtail flounder stocks. Thus, additional mitigation measures should be developed for these stocks—and for the entire fishery.

- Due to specific stock status, it does not appear that this process would have utility with respect to the CC/GOM yellowtail flounder, American plaice and SNE/MA winter flounder stocks. Thus, additional mitigation measures should be developed for these stocks—and for the entire fishery.

Magnuson-Stevens Act

Section 304(e)

MSA § 304 104-297

(e) REBUILDING OVERFISHED FISHERIES.

(1) The Secretary shall report annually to the Congress and the Councils on the status of fisheries within each Council's geographical area of authority and identify those fisheries that are overfished or are approaching a condition of being overfished. For those fisheries managed under a fishery management plan or international agreement, the status shall be determined using the criteria for overfishing specified in such plan or agreement. A fishery shall be classified as approaching a condition of being overfished if, based on trends in fishing effort, fishery resource size, and other appropriate factors, the Secretary estimates that the fishery will become overfished within two years.

(2) If the Secretary determines at any time that a fishery is overfished, the Secretary shall immediately notify the appropriate Council and request that action be taken to end overfishing in the fishery and to implement conservation and management measures to rebuild affected stocks of fish. The Secretary shall publish each notice under this paragraph in the Federal Register.

109-479

(3) Within 2 years after an identification under paragraph (1) or notification under paragraphs (2) or (7), the appropriate Council (or the Secretary, for fisheries under section 302(a)(3)) shall prepare and implement a fishery management plan, plan amendment, or proposed regulations for the fishery to which the identification or notice applies—

(A) to end overfishing immediately in the fishery and to rebuild affected stocks of fish; or

(B) to prevent overfishing from occurring in the fishery whenever such fishery is identified as approaching an overfished condition.

109-479

(4) For a fishery that is overfished, any fishery management plan, amendment, or proposed regulations prepared pursuant to paragraph (3) or paragraph (5) for such fishery shall—

(A) specify a time period for rebuilding the fishery that shall—

(i) be as short as possible, taking into account the status and biology of any overfished stocks of fish, the needs of fishing communities, recommendations by international organizations in which

the United States participates, and the interaction of the overfished stock of fish within the marine ecosystem; and

(ii) not exceed 10 years, except in cases where the biology of the stock of fish, other environmental conditions, or management measures under an international agreement in which the United States participates dictate otherwise;

(B) allocate both overfishing restrictions and recovery benefits fairly and equitably among sectors of the fishery; and

(C) for fisheries managed under an international agreement, reflect traditional participation in the fishery, relative to other nations, by fishermen of the United States.

(5) If, within the 2-year period beginning on the date of identification or notification that a fishery is overfished, the Council does not submit to the Secretary a fishery management plan, plan amendment, or proposed regulations required by paragraph (3)(A), the Secretary shall prepare a fishery management plan or plan amendment and any accompanying regulations to stop overfishing and rebuild affected stocks of fish within 9 months under subsection (c).

(6) During the development of a fishery management plan, a plan amendment, or proposed regulations required by this subsection, the Council may request the Secretary to implement interim measures to reduce overfishing under section 305(c) until such measures can be replaced by such plan, amendment, or regulations. Such measures, if otherwise in compliance with the provisions of this Act, may be implemented even though they are not sufficient by themselves to stop overfishing of a fishery.

(7) The Secretary shall review any fishery management plan, plan amendment, or regulations required by this subsection at routine intervals that may not exceed two years. If the Secretary finds as a result of the review that such plan, amendment, or regulations have not resulted in adequate progress toward ending overfishing and rebuilding affected fish stocks, the Secretary shall—

(A) in the case of a fishery to which section 302(a)(3) applies, immediately make revisions necessary to achieve adequate progress; or

(B) for all other fisheries, immediately notify the appropriate Council. Such notification shall recommend further conservation and management measures which the Council should consider under paragraph (3) to achieve adequate progress.

Magnuson-Stevens Act

Section 305(c)

(c) EMERGENCY ACTIONS AND INTERIM MEASURES.—

(1) If the Secretary finds that an emergency or overfishing exists or that interim measures are needed to reduce overfishing for any fishery, he may promulgate emergency regulations or interim measures necessary to address the emergency or overfishing, without regard to whether a fishery management plan exists for such fishery.

(2) If a Council finds that an emergency or overfishing exists or that interim measures are needed to reduce overfishing for any fishery within its jurisdiction, whether or not a fishery management plan exists for such fishery—

(A) the Secretary shall promulgate emergency22 regulations or interim measures under paragraph (1) to address the emergency or overfishing if the Council, by unanimous vote of the members who are voting members, requests the taking of such actions; and

(B) the Secretary may promulgate emergency22 regulations or interim measures under paragraph (1) to address the emergency or overfishing if the Council, by less than a unanimous vote, requests the taking of such action.

109-479

(3) Any emergency regulation or interim measure which changes any existing fishery management plan or amendment shall be treated as an amendment to such plan for the period in which such regulation is in effect. Any emergency regulation or interim measure promulgated under this subsection—

(A) shall be published in the Federal Register together with the reasons therefor;

(B) shall, except as provided in subparagraph (C), remain in effect for not more than 180 days after the date of publication, and may be extended by publication in the Federal Register for one additional period of not more than 186 days, provided the public has had an opportunity to comment on the emergency regulation or interim measure, and, in the case of a Council recommendation for emergency regulations or interim measures, the Council is actively preparing a fishery management plan, plan amendment, or proposed regulations to address the emergency or overfishing on a permanent basis;

(C) that responds to a public health emergency or an oil spill may remain in effect until the circumstances that created the emergency no longer exist, *Provided,* That the public has an opportunity to comment after the regulation is published, and, in the case of a public health emergency, the Secretary of Health and Human Services concurs with the Secretary's action; and

(D) may be terminated by the Secretary at an earlier date by publication in the Federal Register of a notice of termination, except for emergency regulations or interim measures promulgated under paragraph (2) in which case such early termination may be made only upon the agreement of the Secretary and the Council concerned.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northeast Fisheries Science Center
166 Water Street
Woods Hole, MA 02543-1026

August 23, 2012

Capt. Paul J. Howard
Executive Director
New England Fishery Management Council
50 Water Street
Newburyport, MA 01950

Dear Paul:

Thank you for your letter of June 25, 2012, requesting an explanation for the discard mortality assumptions used in the stock assessments of Atlantic halibut and Atlantic wolffish. The following describes discard mortality assumptions in recent stock assessments and the basis for the assumed values. We also address issues in your letter pertaining to other related studies.

Explanation for the Discard Mortality Assumption Used in the Atlantic Halibut Assessment

The assessment for Atlantic halibut has assumed a 100% discard mortality rate since the 3rd Groundfish Assessment Review Meeting (GARM III). The review of Working Paper B.3 of the GARM III Data Methods Meeting, *Discard and gear escapement survival rates of some Northeast groundfish species* (Hendrickson and Nies, 2007), prompted the Review Panel to recommend that all GARM III assessments assume a 100% discard mortality rate, unless adequate studies were available to support survival rates higher than zero (NEFSC 2008). As you know, survival rate estimates are both species- and size-dependent and many factors affect the survival of discarded fish and gear escapees (Hendrickson and Nies 2007). While one study on discard mortality of Atlantic halibut (Neilson *et al.* 1989) was considered at the GARM, shortcomings in the study design precluded its use as a basis for an estimate of discard mortality less than 100% for Atlantic halibut. Existing discard mortality estimates for Pacific halibut were not considered appropriate for Atlantic halibut because fishing practices and environmental conditions are very much different in the Pacific halibut fishery, and these values would not be relevant to Atlantic halibut.

Explanation for the Discard Mortality Assumption Used in the Atlantic Wolffish Assessment

The Atlantic wolffish stock was assessed at the Data Poor Stock Working Group in 2008 (NDPSWG 2009), and an assessment update was conducted in 2012 (NEFSC 2012).
Over the entire time series of available data, discards account for a small component of the overall catch of Atlantic wolffish. Between 1989 and 2007 discards constituted 2.1% of the total landings. Otter trawls account for 98.3% of the total discarded wolffish during these nearly two decades. This pattern has changed in recent years due to regulatory measures. The 2010 total catch was dominated by the commercial discards of 14.3 mt, followed by 2.7 mt of landings, and 0.5 mt of recreational landings.

w: TN, CBK (8/29), SSC Cte

All wolffish discards from commercial fisheries are assumed to die. This assumption follows the precedent established at GARM III where the Review Panel recommended assessments assume 100% discard mortality rate, unless adequate studies were available to support survival rates higher than zero (NEFSC 2008). A Canadian study of trawl-caught wolffish by Grant *et al.* (2005) not considered by the Data Poor Working Group stated "Atlantic wolffish is a very hardy species, capable of surviving capture by otter trawl and net entrainment for 2-2.5 hours, haul back through a thermocline, extended periods of exposure to moderate air temperatures, handling, and simulated release." It is not known if the experimental conditions of the Grant *et al.* study are applicable to the US stock. Given the relatively small contribution of discards to total wolffish catch over the time series, a change in the discard mortality rate would not alter the assessment to any significant degree.

Historically, total recreational landings of wolffish represented a small fraction of commercial landings. Recreational landings have recently become more significant while commercial landings have steadily declined. Recreational wolffish landings in 2009 accounted for approximately 22% of the total catch. Recreational landings were extremely low in 2010 because possession of Atlantic wolffish was prohibited (as of May 2010) in the recreational sector. The estimates of recreational landings include both Type A fish (caught whole and available to measure) and B1 fish (caught and filleted, released dead, etc) that are fish permanently removed from the population. Type B2 fish (caught and released alive) are not included in the catch estimates for wolffish, and therefore 100% of these individual are assumed to survive.

We are not aware of any discard mortality studies of recreationally-caught wolffish. A recent paper by Benoît *et al.* (2010) found that wolffish length was a significant predictor of discard mortality. Their study results suggest a discard mortality rate lower than 100%, but no quantitative estimates are provided. Absence of a swim bladder and anecdotal information about wolffish longevity suggest the potential for higher survival rates for recreationally-caught wolffish. However, we are not aware of any quantitative field studies documenting this higher survival rate.

We hope that this information provides a clear understanding of assumed discard rates for these two species.

Sincerely,

Russell W. Brown

Russell W. Brown, Ph.D.
Acting Science and Research Director

cc: J. Armor
F. Serchuk
P. Rago

Karen Roy

From: Kevin Odell <mail@change.org>
Sent: Thursday, September 06, 2012 4:45 PM
To: Rip Cunningham
Subject: Save Family Fishermen, Save the Fish: Consolidation is NOT Conservation

Greetings,

I just signed the following petition addressed to Rip Cunningham, chair of the New England Fishery Management Council.

Dear Mr. Cunningham,

It's time to stop crisis management and start fixing the core problems. Consolidation of the fishing industry and lack of protections threaten the fish and the family fishermen and leads to one crisis after another that distracts the Council from dealing with the real problems facing our ocean. In just two years of the new Catch Share policy, we have seen what it can do to the fish stocks that fishermen worked so hard to rebuild.

The Council can't hide behind short term emergencies that are rooted in problems associated with consolidation and the disappearance of family fishermen. This is a major problem because family fishermen support local economies, a healthy ocean, and access to locally harvested food.

I urge you to adopt policies that protects fleet diversity, levels the playing field for family fishermen, and ensures that the rights and access to fish are NOT concentrated into the hands of a few players.

Consolidation is not conservation.

Sincerely,

I want working fisherman to have a job and opportunity to fish!

Kevin Odell
Gloucester, Massachusetts

Karen Roy

From: Ted Ames <mail@change.org>
Sent: Thursday, August 23, 2012 10:10 AM
To: Rip Cunningham
Subject: Save Family Fishermen, Save the Fish: Consolidation is NOT Conservation

Greetings,

I just signed the following petition addressed to Rip Cunningham, chair of the New England Fishery Management Council.

Dear Mr. Cunningham,

It's time to stop crisis management and start fixing the core problems. Consolidation of the fishing industry and lack of protections threaten the fish and the family fishermen and leads to one crisis after another that distracts the Council from dealing with the real problems facing our ocean. In just two years of the new Catch Share policy, we have seen what it can do to the fish stocks that fishermen worked so hard to rebuild.

The Council can't hide behind short term emergencies that are rooted in problems associated with consolidation and the disappearance of family fishermen. This is a major problem because family fishermen support local economies, a healthy ocean, and access to locally harvested food.

I urge you to adopt policies that protects fleet diversity, levels the playing field for family fishermen, and ensures that the rights and access to fish are NOT concentrated into the hands of a few players.

Consolidation is not conservation.

Sincerely,

Retired groundfish fisherman and scientist

Ted Ames
Stonington, Maine

91 FAIRVIEW AVE
PORSTMOUTH NH 03801

NORTHEAST HOOK FISHERMAN'S ASSOCIATION

September 10, 2012

New England Fishery Management Council
50 Water Street, Mill 2
Newburyport, MA 01950
Phone: (978) 465-0492
Fax: (978) 465-3116

Subject: Framework Adjustment 48 to the Northeast Multispecies Fishery Management Plan

Dear NEFMC Council Members:

We represent a small group of Commercial Fishermen with the Limited Access Handgear HA Permits, employing the use Rod and Reel or Handlines to catch Cod, Haddock and Pollock along with small quantities of other regulated and non-regulated marine fish. Historically and currently our fishermen account for a very small percentage of the groundfish landed in New England. However, the monetary gains obtained by the participants in this fishery are very important to us.

The Northeast Hook Fishermen's Association is requesting the following measures added to FW48 to mitigate expected low catch levels in fishing year 2013:

1. Remove Handgear and Longlines from the list of gear prevented from fishing when the White Hake common pool sub ACL is harvested (in a Trimester or for the year). The White Hake catch by these gear types is extremely small (less than 1% ACL) and insignificant compared to the harvest by other gear. Refer to the attached email and data from the NMFS for further information.

2. Remove the common pool Trimester sub ACL quota system and return the common pool to a yearly sub ACL. The fishery is better managed on a yearly system as what was done in 2010 & 2011. The Trimester system was developed when it was not known how much quota would be in sectors or the common pool. Now this system is not needed and causes more harm than good with only 2% of the groundfish ACL in the common pool. Cod will be the ultimate choke species in 2013 and it is much better to have a yearly quota for planning by fisherman than for fisherman to worry about a Trimester opening and closing within a few days.

3. Request that the NMFS make changes to trip limits first before closing a fishery once a sub ACL of a species in harvested in the common pool. This will allow fishermen to harvest other fish species where there is available quota.

4. Recommend that the trip limit for GOM cod be set at a level to allow some caught without jeopardizing the harvest of other species in the common pool sub ACL. The cod trip limit should not be reduced to less than 100 lbs since it would be difficult for fisherman to estimate less than a tote of cod.

Cont. next page

cc: TN, CBL, Council (9/12)

Please enter this into the public record for comments to the Groundfish Oversight Committee meeting on September 19th and provide to the Council for consideration at the September 25-27 meeting.

Respectfully,

Marc Stettner

If you are a holder of a groundfish HA permit and wish to join the NEHFA, please contact the NEHFA at the address above.

----- Original Message -----
From: Brett Alger
To: Marc S.
Cc: Daniel Caless ; J.Michael Lanning ; Susan Murphy ; Hannah Goodale
Sent: Tuesday, August 28, 2012 4:27 PM
Subject: FY 2010 and 2011 White Hake Catch Request

Marc,

Attached is the data you requested. It contains white hake catch by gear for both FY 2010 and FY 2011, for the common pool, sectors, and the total combined. Looking at the combined total of Sectors and Common Pool, it would appear that trawl gear and gillnet comprises ~99% of the catch, with longline/hand line comprising <1%. This distribution is exhibited when you only look at the Common Pool too.

Let me know if you have any questions. Again, a big thank you goes to Dan for pulling this together so quickly.

Best of luck fishing this weekend.

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FY10/11 White Hake Catch by Gear, Sector Group

Fishing_ Year	GEAR	SECTOR_GROUP	KEPT_MT	DISCARD_MT	CATCH (lbs)	CATCH _MT	Catch % of Fishing Year
2010	Groundfish Trawl	COMMON_POOL	3.55	0.30	8,477	3.84	0.2%
		SECTOR	1,781.28	22.83	3,977,387	1,804.11	83.0%
	Groundfish Trawl Total		1,784.83	23.13	3,985,863	1,807.96	83.2%
	Gillnet	COMMON_POOL	36.40	4.10	89,278	40.50	1.9%
		SECTOR	305.36	7.89	690,591	313.25	14.4%
	Gillnet Total		341.76	11.99	779,869	353.74	16.3%
	Longline	COMMON_POOL	0.00	0.00	0	0.00	0.0%
		SECTOR	6.12	0.88	15,428	7.00	0.3%
	Longline Total		6.12	0.88	15,428	7.00	0.3%
	Hand Line	COMMON_POOL	0.47	0.00	1,027	0.47	0.0%
		SECTOR	0.00	0.00	4	0.00	0.0%
	Hand Line Total		0.47	0.00	1,031	0.47	0.0%
	Fish Pot	COMMON_POOL	0.00	0.00	0	0.00	0.0%
		SECTOR	0.00	0.00	0	0.00	0.0%
	Fish Pot Total		0.00	0.00	0	0.00	0.0%
	Other	COMMON_POOL	0.00	0.00	0	0.00	0.0%
		SECTOR	4.19	0.00	9,240	4.19	0.2%
	Other Total		4.19	0.00	9,240	4.19	0.2%
2010 Total			2,137.36	35.99	4,791,431	2,173.36	100.0%
2011	Groundfish Trawl	COMMON_POOL	3.80	0.04	8,462	3.84	0.1%
		SECTOR	2,392.68	14.19	5,306,229	2,406.86	79.5%
	Groundfish Trawl Total		2,396.48	14.23	5,314,691	2,410.70	79.6%
	Gillnet	COMMON_POOL	9.13	0.75	21,778	9.88	0.3%
		SECTOR	579.20	18.26	1,317,183	597.46	19.7%
	Gillnet Total		588.33	19.01	1,338,961	607.34	20.1%
	Longline	COMMON_POOL	0.01	0.00	28	0.01	0.0%
		SECTOR	7.20	0.12	16,133	7.32	0.2%
	Longline Total		7.21	0.12	16,161	7.33	0.2%
	Hand Line	COMMON_POOL	0.12	0.26	843	0.38	0.0%
		SECTOR	0.00	0.00	8	0.00	0.0%
	Hand Line Total		0.13	0.26	851	0.39	0.0%
	Fish Pot	COMMON_POOL	0.00	0.00	10	0.00	0.0%
	Fish Pot Total		0.00	0.00	10	0.00	0.0%
	Other	COMMON_POOL	0.00	0.00	0	0.00	0.0%
		SECTOR	2.74	0.00	6,033	2.74	0.1%
	Other Total		2.74	0.00	6,033	2.74	0.1%
2011 Total			2,994.88	33.62	6,676,707	3,028.50	100.0%

Values in live weight

Includes estimate of missing dealer reports

Source: NMFS Northeast Regional Office

Run date: June 28,2012

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database.